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*Commerce*

# SOUTHERN TEXTILE BULLETIN

VOL. 29

CHARLOTTE, N. C., THURSDAY, JANUARY 14, 1926

NUMBER 20

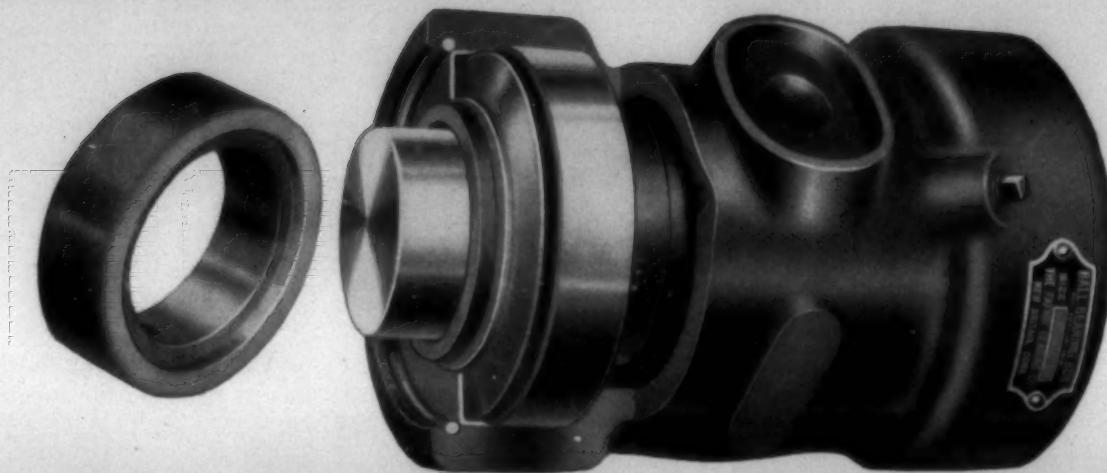
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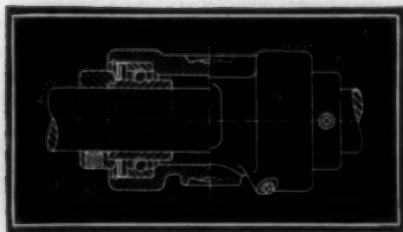
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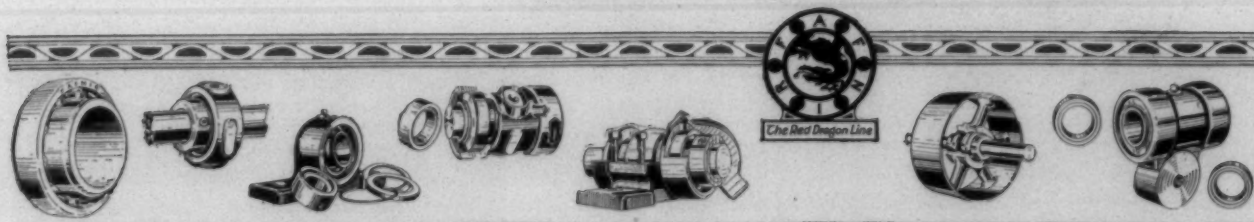
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# SOUTHERN TEXTILE BULLETIN

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VOL. 29

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NUMBER 20

## Lancashire's Problem of Diminished Output

By G. W. Daniels, in Manchester (Eng.) Guardian

**E**VEN a brief consideration of the present position of the British cotton industry must begin with a statement of certain facts concerning the position of the industry in pre-war days. The comparative magnitude of the industry at that time is indicated by its possessing 40 per cent of the world's cotton spindles, as contrasted with 24 per cent possessed by the industry of the United States, and 8 and 5 per cent by the industries of Germany and France respectively. Of the world's power-looms the British industry claimed 29 per cent, that of United States 25 per cent, and the industries of Germany and France each less than 7 per cent. Since 1913 the world's cotton spindles have increased by about 19 millions mainly by increases of nine millions, by increases of nine millions in Asia, seven millions in America, and two millions in Great Britain. For the world's power-looms reliable statistics are not available, though it may be surmised that some increase has taken place; in Great Britain there has been an increase from 786,000 to 788,000.

Concerning the world's consumption of all kinds of cotton in the seasons 1912-13 and 1924-25 the following table is of interest.\*

World's Cotton Consumption.		
Bales (000's omitted).		
	1912-13	1924-25
United Kingdom	4,274	3,235
Continent	7,914	6,521
U. S. A.	5,719	6,792
Asia	3,765	6,238
Others	956	1,047
	22,628	23,833

Both the above table and the figures for spindles indicate that any expansion of the world's cotton industry since pre-war days has been confined almost entirely to Asia and the United States. Although an increase in the number of British spindles is recorded, the increase is associated with a decline in the amount of cotton consumed; in previous years, in fact, the decline has been far greater than the 1924-25 figures show.

This fall in the amount of cotton consumed in the British industry is one aspect of the depressed condition of the industry during the last five years. During the whole period 1914-20 the output of the industry was greatly reduced, but, with the prevailing level of prices, the reduction was hardly noticed. It was

only with the decline of prices on the collapse of the post-Armistice boom that it was fully realized how far the industry had departed from its pre-war position.

To understand the present position it is necessary to bear in mind that according to pre-war estimates something like 80 per cent of the total production of British piece goods and 12 per cent of the total production of yarn found markets abroad. It is mainly in the decline of foreign demand for piece goods that the explanation of the present depression is to be found. As far as can be judged, the home demand for piece goods has not declined in as great a proportion as the foreign demand, and this statement is certainly true of the foreign demand for yarn.

The following figures for groups of foreign markets show the position in 1924 as compared with 1913:—

Group of markets	Percentage distribution of piece-goods exports		Percentage change in quantities of piece-goods exports	
	1913	1924	1913	1924
Far East	61.6	46.4	100	50
Near East	10.2	12.2	100	78
South America	9.5	10.1	100	78
S'lf-govg Dom'ns	5.6	7.0	100	83
Europe	5.2	9.6	100	120
Africa	4.8	6.0	100	79
United States	0.6	3.5	100	364
Total (mil. yds.)	7,075	4,622	100	65

Comparing the percentage distribution of piece goods in the above groups of markets in 1913 with 1924 it will be seen that, with the exception of the Far Eastern group, each of the other groups absorbed a larger proportion of the total exports in 1924 than in 1913, but this does not mean that they absorbed larger quantities. Generally, since 1920 the groups composed of European countries and the self-governing Dominions have nearly maintained their pre-war demand, while the demand from the United States has greatly increased. Unfortunately, the quantities normally taken by these groups are small compared with the quantities taken by the other groups. Moreover, the other groups show great shrinkages, the greatest having taken place in the Far Eastern group, which in 1913 absorbed no less than 62 per cent of the total exports. Evidently the decline of demand in this group is the most important factor in the present situa-

tion. Of the Far Eastern markets India is, of course, by far the largest accounting in 1913 for more than 70 per cent of the exports of British piece goods to the Far East; the next largest market, China, absorbing about 16 per cent.

As regards the situation in India, it is a significant fact that the total consumption of cotton goods has not declined to anything like the same extent as the import of British piece goods. In the year 1924-25 as compared with the year 1913-14 the production of piece goods by the Indian mills was greater by 800 million yards; also between these years Japanese exports to India considerably increased. In China and in some South American countries similar tendencies have been in operation and in the Near East increased competition appears to have developed.

In view of these facts it is clear that an enormous leeway has to be made up before the pre-war export trade in British piece goods is restored. No doubt the greatest obstacle in the way of restoration has been the level of supply prices. During the three years 1922-24 the average prices of British piece goods remained almost stationary at nearly 140 per cent above pre-war prices, while the volume of exports also remained stationary at rather more than 60 per cent of the pre-war volume, which would suggest that at that level of prices a position of equilibrium had been attained. Towards the latter end of 1924, however, consequent upon the large crop of American cotton, the price of raw material declined, and with the present season's crop standard American cotton has further declined to about 60 per cent above the portion of this decline has been absorbed in assisting to create profitable margins for spinners; whether any further fall will be absorbed for the same purpose remains to be effected in other directions, the outlook for a speedy restoration of the pre-war position of the British cotton industry is far from promising.

At this point certain important changes that have taken place in the industry since 1913 ought to be noticed. That the money costs of all the operations involved in the complete production of cotton goods

have taken place in the industry since 1913 ought to be noticed. That the money costs of all the operations involved in the complete production of cotton goods have increased, consequent upon the change in the general level of prices, goes without saying. But, in addition, there have been other changes not so directly connected with that change. Thus, in 1919 a movement began by which a large portion of the spinning concerns were recapitalized, with the result that their paid-up share capital was increased, on the average, to three or four times the pre-war amounts. In the same year an agreement was arrived at by which the number of working hours was reduced from 55½ to 48 a week. Again, after the collapse of the post-Armistice boom the policy of short-time working was adopted in order to cope with the succeeding depression, and since the early months of 1924 the policy has been consistently adhered to by the American section of the spinning trade.

At the moment, in view of the existence of this short-time policy, any discussion of the effects of the reduction in the length of the normal working week upon the relatively position of the British cotton industry would seem academic in character, and would serve no useful purpose. Moreover, on the assumption that the cotton industries of other countries adopt and adhere to the policy of a shorter normal working week, it is unlikely that the reduction will become the subject of acute controversy in the future. Again, seeing that profits in the American spinning section during the last five years have been more conspicuous by their absence than by their presence, it would appear that the present effects of the recapitalization movement must be unimportant. Maybe the fact that a return is expected on paid-up share capital is at present influencing, and will for some time continue to influence, estimations of profitable prices, but it is encouraging to bear in mind the improbability that the recapitalization movement will permanently weaken the relative position of the industry. Whether the movement proceeded too far it is at present impossible to say, but the fact that the value of invested capital is determined by its earnings will ultimately reveal the exact situation

(Continued on Page 34)

\*International Cotton Bulletin IV. 1.



# Methods of Handling Rayon

THE following article, prepared by the Viscose Co., for the Journal of Commerce, contains a great deal of worthwhile information on the handling of rayon:

## Winding.

The first and most important point in winding artificial silk is the laying of skeins on the swifts. It is necessary to determine the inside and outside of a skein. This is done by spreading it across both hands, your fingers pointing away from you, until it is flat both widthway and lengthway. If both inside and outside are tight and flat you have it right side out, or, in other words, just the way it left the reeling machine. If, however, the inside is loose and the outside tight, reverse it by turning inside out.

With the inside and outside of a skein determined, the next step is to lay it on the swift and find the end. The skein should be laid on the swift in the same relative position as it was made up on the reel—that is, outside on the reel should be outside on the swift. The skein should lay on the swift, spread out evenly widthway as far as the swift will allow, and the swift bands should be equal distance from the swift-axis. Artificial silk is reeled with a cross-wind and is laced with four tie-bands, to one of which the ends are tied.

Remove the tie-bands by cutting them on the edge away from the knot; the tie-band to which the ends are fastened being the last one out. The end for winding is the one running on the outside of the skein. Cutting them on the edge away from the knot will allow them to be pulled out easily without disturbing the lay of the yarn. Don't break the tie-bands, as this has a tendency to break and split the filaments. Don't straighten skeins by beating on a shaker-pole, as this does not straighten the yarn but damages it. It is very important that the operator be instructed to straighten skeins on hands as noted above.

The process of winding from the skein to the bobbin is performed on a machine similar to that used for winding natural silk. The machine is of light construction and the speed is regulated to insure maximum production with a minimum amount of stretching or breaking of the yarn; thus producing good work. The shaft of the winding machine should run at about 125 revolutions per minute, which gives an average thread-speed from the shaft of 75 yards per minute.

## Humidity Maintained.

The spindle or arbor on which the bobbin is placed has on one end a friction-bowl, and on the other end a thumb-screw which is used to hold the bobbin in place against the friction-bowl. This bowl is about one inch in diameter and receives its motion by friction from a wheel about five inches in diameter, fixed to the main shaft of the machine.

Some spindles or arbors are designed with a friction-bowl on each

end. In this case the thumb-screw is done away with and is replaced by a friction-bowl carrying an interior or female thread. This bowl holds the bobbin firmly on the spindle just as the thumb-screw does.

This type of drive is very sensitive in its action and is suitable for the winding of artificial silk, where a bobbin wound lightly is required. When anything occurs during the winding to prevent the thread coming freely from the skein, it will hold the bobbin stationary until the operator can straighten the skein, thus preventing the yarn from breaking. The traverse should have porcelain guides that are perfectly smooth and which should be inspected at least three times a year, as they become worn or cut from the constant friction of the yarn. It is essential that the guides be perfectly smooth so as to prevent the filaments from being broken. It is also essential that the skein be placed on the swift with the swift-bands symmetrical, as noted above, thus allowing the yarn to come freely from the swift.

When yarn breaks during the winding operation and it becomes necessary to tie a knot, the operators should be instructed to tie all flat knots.

The humidity of the room in which winding is being done should be carefully maintained. The ordinary daily fluctuations of humidity have their effect on the strength of the fiber. Dry conditioned air is particularly desired. During unseasonably damp weather, during a hazy, muggy spell, and particularly after mill holidays, it is necessary to heat promptly and thoroughly, and to ventilate the room well.

The weight and size of bobbin used for the winding of artificial silk and the weighting of the swift are of great importance. Bobbins suitable for yarns ranging from 100 denier to 150 denier should not be over three (3) ounces in weight and should conform to the following dimensions:

	Inches
Over all .....	3½
Inside of flanges .....	2½
Diameter of flanges .....	2½
Diameter of barrel .....	1½

The weighting for the swift should not be over 6-7 ounces.

## Copping or Quilling.

Owing to the stretch and uneven tension caused by the variation of the swift, it is not advisable to run the thread direct from the skein to the cop. To obtain the best results, it is essential to run the thread from a bobbin wound on a winding machine and then on a quiller to run from the bobbin to the quill cop.

The type of quills used for quilling artificial silk is the same as is used for quilling natural silk. The quilling machines are equipped with compensators to regulate the tension on the yarn as it passes from the bobbin to the cop or quill. All points of contact should be smooth, and should revolve (fiber or wooden

wheels being used), thus eliminating the friction that would be caused otherwise. Artificial silk is subjected to a severe strain while being quilled and extreme care should be taken as to the uniformity of tension on each spindle. The spindle must be perfectly true as any variation has a tendency to bruise or discolor the material where it comes into contact with the builder. Uneven tension or strain upon the yarn will cause it to stretch, thus producing tight or bright picks, in the woven cloth. Knots should be laid on the surface of the quill, not in the traverse, so that, during the process of weaving, the thread will draw freely from the quill. This is essential because any obstruction on the quill during weaving also causes tight and bright picks.

The wind most suitable for artificial silk is the seven-wind which can be produced on a natural silk quiller. The speed of the machine should be regulated so that the spindle runs about 2,400 revolutions per minute.

The length of cop or quill should be not more than 5½ inches. Using a cop or quill of this length, a seven-wind and 1¼-inch throw, and building it to ¾-inch diameter, it would hold approximately 1,365 yards of 150 denier yarn. Regulation of the temperature and humidity of this room should be similar to that used in the winding process.

## Warping.

The machine used for the warping of artificial silk is the same type that is used for natural silk. This is known as a "horizontal warper." A V-shaped creel should be used. It should be arranged so that all the bobbins, when placed on the pins, will be at the same angle as the leasing-reed. Any deviation from this rule has a tendency to put more friction upon the bobbin, and the thread may then come into contact with the side of the bobbin, and break the filaments. At the commencement of a warp, all the bobbin should be as similar as possible in weight and diameter, so that the tension on all the threads is about equal. Care should be taken by the warper, when creeling, that the material is handled as little as possible, as the unsized yarn at this stage is of such a nature that the filaments easily split and break.

The warp is built up, according to the number required, without handling or interfering with the threads after they have left the spacing reed. The machine is so arranged that a beam can be placed on the back side and the warp wound on without the risk of any entanglements. It is essential that the flanges of the beams be smooth and true, and that the beam be set to the exact width of the warp on the machine in order to keep good sides and thus prevent high and low selvages. In preparing a warp for sizing on this type of machine, it is well to bear in mind that the warp must be placed on the beam as light as possible, preferably a soft beam. On the other hand, if the yarn is sized and is being

prepared for the loom, then a hard beam is preferred, and more tension should be applied when beaming.

There are other types of warping or beaming machines used for artificial silk; one such as that now being used in preference to the horizontal type when a warp is required, having a range of 100-1,000 ends. A "V-shaped" creel is also used for this machine similar to the one used for the horizontal machine, but it is much longer.

As noted above, in winding and quilling, a dry atmosphere is essential in warping artificial silk, and is even more important in this operation than in any other, and should, therefore, very carefully watched. In a moist atmosphere the yarn expands, causing it to sag, and making it impossible to beam uniformly.

## Sizing.

The sizing machine is especially designed for and adapted to artificial silk and is capable of sizing the materials according to requirements.

It is not advisable to size more than 1,500 to 2,000 ends at one time. When a warp with more than this number is required it is advisable to use more beams and to run them together on the rebeaming or dressing machine. Owing to the "stretch" of artificial silk, and particularly so when in contact with the size, tension on the back beam when sizing should be as light as is consistent with good working. When the warp is sized there is not the same risk of the material stretching, and good results are obtained by making the weaver's beams hard with press rollers.

In the process of sizing the beam should be measured about every 100 yards. If the beam should "measure out," that is, prove to be high on one side and low on the other, the attendant should build up the low side to the required height by the insertion of paper. Then the presser-roller is so adjusted as to prevent a recurrence.

The success of artificial silk weaving during the last few years is attributed to a considerable degree to sizing. Just as sizing is essential to the successful weaving of single cotton yarn, so is it essential that the filaments of artificial silk be bound together by an adhesive substance to strengthen them during the process of weaving. Artificial silk, properly sized.

For machine-sizing the following formulas are those most suitable for artificial silk:

(1) 3½ pounds flexible starch; 1½ pounds corn starch.

This mixture is dissolved in three gallons of water, after which it is poured into a tank that contains 15 gallons of water. The contents are then boiled and stirred for from 15 to 20 minutes.

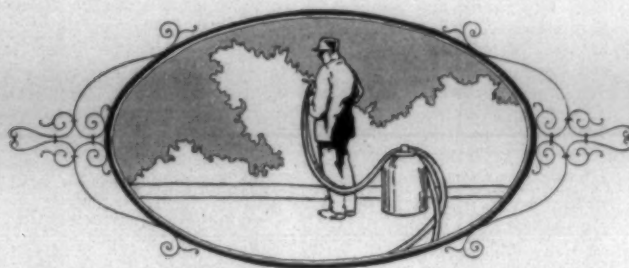
Before using this preparation it should be allowed to cool down to a temperature of 80-90 degrees Fahrenheit and this temperature should be maintained during the process of sizing.

(Continued on Page 32)



# Aluminum Paint is the Single Coat Finish for Interior Walls and Ceilings

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The Paint consists of thin flakes of pure metallic aluminum (Aluminum Bronze Powder) mixed with a suitable vehicle of oil or varnish.

The flakes "leaf" together when the Paint is applied. They form a continuous light-reflecting film of aluminum over the surface.

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## Brief Facts about Aluminum Paint

- consists of Aluminum Bronze Powder mixed with a suitable vehicle of oil or varnish.
- 2 lbs. of powder per gallon of vehicle.
- Powder made of pure metallic aluminum flakes.
- Flakes "leaf" together, forming rustproof, waterproof, weatherproof coating.
- 500-700 square feet coverage per gallon.
- One coat completely hides original color of surface.
- Can be sprayed or brushed on.
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A L U M I N U M I N E V E R Y C O M M E R C I A L F O R M

# International Textile Situation in 1925

**T**HE stock-taking season again has arrived. So far as the international aspects of textile manufacturing and merchandising are involved, the following are some of the outstanding developments during the year just ended, according to reports reaching the Textile Division, Department of Commerce.

## Cotton Crops.

The cotton crop in the United States will exceed 15,500,000 bales, according to official estimates—about 2,000,000 greater than in the previous year.

## Export and Consumption of American Cotton.

American exports of raw cotton for the first 11 months of 1925 were approximately 1,800,000 bales in excess of those in the corresponding period of 1924.

World mill takings of American cotton for the first 11½ months of 1925 were about 4,000,000 bales more than during the same period of the preceding year.

American mills consumed almost 860,000 bales more cotton in the first 11 months of 1925 than in the like period of 1924.

## Cotton Prices.

American cotton prices were lower and steadier. In 1924 cotton ranged

from 35 to 24 cents a pound and averaged nearly 28 cents. In 1925 it ranged from 26 to 18 cents and averaged about 23½ cents a pound.

## American Mill Activity.

On the whole, cotton mills in the United States were more active, the spinning branch having operated at about 92 per cent of capacity during the first 11 months of 1925 compared with 77 per cent for the corresponding period of the previous year. While no production figures are available, it may reasonably be assumed that the mills are in a much more favorable position than in 1924.

## Wool Imports and Consumption.

Raw wool imports during the first 11 months of 1925 were about 52,000,000 pounds in excess of the imports for the entire year 1924.

Wool consumption in the United States, however, was almost identical during the first 10 months of 1925 with the like period of 1924.

No production figures for wools and worsteds are available, but it is said that the condition of the industry is better than in the previous year.

## Silk Imports and Deliveries.

Raw silk imports into the United States during the first 11 months of

1925, totalled about 445,000 bales, nearly 100,000 greater than receipts during the same period of the previous year.

Deliveries of raw silk to American mills amounted to 459,000 bales for the period, January to November, 1925, or approximately 125,000 more than those for the corresponding months of the preceding year. On the average, silk mills in the United States appeared to be running approximately 20 per cent better than in 1924.

## Rayon Production.

In 1925 the United States produced and imported approximately 60,000,000 pounds of rayon as compared with about 39,000,000 in 1924.

## Cotton Goods Trade.

During the first 11 months of 1925 American exports of cotton piece goods reached nearly half a billion yards, or approximately 62,000,000 yards in excess of shipments during the like period of 1924.

Imports of cotton goods for the period, January to November, 1925, slightly exceeded 100,000,000 square yards as compared with 160,000,000 for the corresponding months of 1924.

Imports of unbleached cloths were 30 per cent less and of colored cloths

of various descriptions 50 per cent less than in 1924.

Considering the increase in the exports and the decrease in the imports of cotton goods, the United States shows a net gain of 120,000,000 square yards.

## Knit Goods Industry.

The cotton knit goods industry was in a much more favorable position than in 1924.

Practically every section of the knitted outerwear industry is in a good condition and shows marked improvement over the previous year, despite a rather severe slump during the summer months.

## Hosiery Exports.

Exports of cotton hosiery for the first 11 months of 1925 amounted to more than 5,000,000 dozen pairs, a gain of 600,000 over shipments during the corresponding period of 1924.

Rayon hosiery exports totalled about 1,500,000 dozen pairs, just about double what they were the year before.

Shipments of silk hosiery abroad during the 11 months ended December 30, 1925, reached 1,120,000 dozen pairs, a gain of 420,000 over the same period of 1924.

(Continued on Page 34)

INSPECTING  
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BRUSHING  
SHEARING  
SINGEING  
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## Curtis & Marble Machine Co.

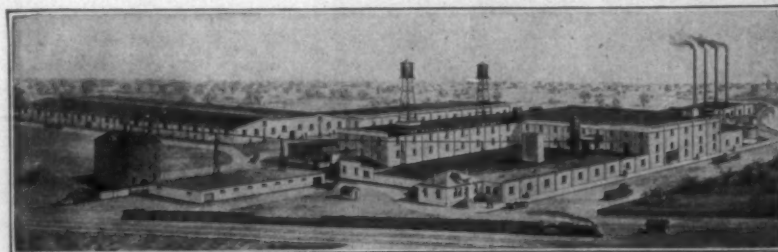
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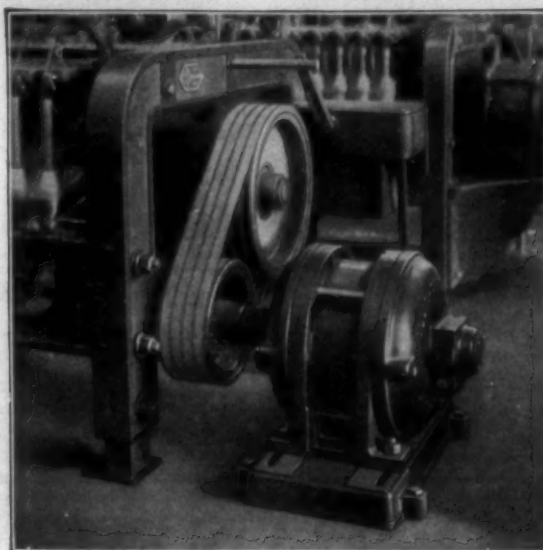
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# ALLIS TEXROPE DRIVE

PATENTS PENDING

## THE IDEAL TEXTILE DRIVE



Allis Texrope Drive Applied to Cotton Twister

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Manufacturers of textile machines are furnished **TEXROPE** drives as factory equipment.

Textile engineers pronounce the **TEXROPE DRIVE** to be the greatest advance in power transmission in a generation.

Why?

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Breakage of threads is reduced by its velvety smoothness in starting, acceleration and running. It does not transmit vibration or jerks.

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*Write for Bulletin No. 1228*

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# Many Southern Mills Pay Dividends

Semi-annual dividends of Southern cotton mill disbursements on or about January 1, 1926, has been compiled by A. M. Law & Co. This list is by no means comprehensive, as it does not include dividends paid by many of the smaller mills nor some of the larger companies whose stock is so closely held that the rate would not be of general interest. Also, there are many companies whose dividends periods are at other dates than January 1. These are also left out.

The dividends declared are in line with those that were expected, as most of the Southern mills pursue the policy of paying a fixed rate of dividend during bad years as well as more favorable times. They are usually in a position to maintain these rates as when earnings are abnormally large a good portion of these are placed in the surplus account. The list compiled follows:

Mill	Dividend	Stock
Abbeville Cotton Mills	3 %	\$635,400 Com.
American Spinning Company	5 %	525,000 Com.
Aragon-Baldwin Mills	3½ %	2,300,000 Pref.
Arcadia Mills	5 %	200,000 Com.
Arcadia Mills	3½ %	800,000 Pref.
Avondale Mills	15 % (Q)	6,000,000 Com.
Avondale Mills	4 %	250,000 Pref.
Beaumont Mfg. Co.	5 %	200,000 Com.
Beaumont Mfg. Co.	3 %	200,000 Pref.
Beaumont Mfg. Co.	3½ %	200,000 Pref.
Belton Mills	3½ %	1,400,000 Pref.
Brandon Mills	4 %	957,000 Com.
Brandon Mills	3½ %	500,000 Pref.
Calhoun Mills	2 % (Q) plus 2% extra	1,000,000 Com.
Chadwick-Hoskins Co.	1 % (Q)	3,000,000 Com.
Chadwick-Hoskins Co.	4 %	800,000 Pref.
Cannon Mfg. Co.	1½ % (Q)	10,500,000 Com.
Chesnee Mills	5 %	394,900 Com.
Chiquola Mfg. Co.	5 % plus 5% extra	358,000 Com.
Chiquola Mfg. Co.	3 %	358,000 Pref.
Clifton Mfg. Co.	4 %	2,500,000 Com.
Clinton Cotton Mills	4 %	350,000 Com.
Columbus Mfg. Co.	4 %	1,400,000 Com.
Cowpens Mills	2 %	400,000 Com.

Cowpens Mills	4 %	100,000 Pref.
D. E. Converse Co.	3½ %	1,000,000 Com.
Dallas Mfg. Co.	3 %	1,500,000 Com.
Darlington Mfg. Co.	3½ %	500,000 Com.
Darlington Mfg. Co.	3½ %	500,000 Pref.
Drayton Mills	3½ %	350,000 Pref.
Duncan Mills	1½ % (Q)	1,000,000 Pref.
Efird Mfg. Co.	5 %	1,500,000 Com.
Eagle & Phenix Mills	3 %	500,000 Pref.
Enoree Mills	1½ % (Q)	365,000 Pref.
Erwin Cotton Mills	1½ % (Q)	2,000,000 Pref.
Fairmont Mfg. Co.	5 %	225,000 Com.
Fairmont Mfg. Co.	3½ %	150,000 Pref.
Gainesville Cotton Mills	4 %	490,600 Com.
Gaffney Mfg. Co.	3 %	1,600,000 Com.
Georgia-Kincaid Mills	2 % (Q)	600,000 Com.
Georgia-Kincaid Mills	3½ %	1,300,000 Pref.
Glenwood Cotton Mills	2 % (Q)	1,200,000 Com.
Grendel Mills	3½ %	750,000 Pref.
Griffin Mfg. Co.	3½ %	300,000 Pref.
Hamrick Mills	5 %	500,000 Com.
Hartsville Cotton Mills	3½ %	750,000 Com.
Hermitage Cotton Mills	2 % (Q)	151,500 Com.
Hermitage Cotton Mills	1½ % (Q)	150,000 Pref.
Inman Mills	3½ %	600,000 Com.
Jackson Mills	4 %	345,000 Com.
Judson Mills	4 %	2,250,000 Com.
Judson Mills	1½ % (Q)	960,000 Pref.
Lancaster Cotton Mills	5 %	1,600,000 Com.
Lancaster Cotton Mills	3½ %	800,000 Pref.
Laurens Cotton Mills	4 %	1,050,000 Com.
Limestone Cotton Mills	5 %	500,000 Com.
Manchester Cotton Mills	3 % (Q)	500,000 Com.
Mills Mill	5 %	264,700 Com.
Molloy Mfg. Co.	4 %	750,000 Com.
Monarch Mills	3½ %	3,000,000 Com.
Monarch Mills	3½ %	1,000,000 Pref.
Newberry Cotton Mills	4 %	1,000,000 Com.

(Continued on Page 33)

## H. & B. AMERICAN MACHINE CO.

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## COTTON MACHINERY



## HOUGHTON

# The Near Editor Uses Shocking Language

**A**N Irishman who had been injured by falling from a building was asked by the physician at the hospital, "Were you injured by a fall?" "Sure, en it wus not ther fall what hurt me, but the sudden stoppin'," he replied.

In other words, it was the shock and it is always the shock which does the damage. Over yonder you will see a brick building; the bricks are sustaining many tons of steady pressure and yet a slight blow from a hammer will break them.

It is seldom the surgical operation in itself that kills; the patient usually dies of the shock.

Good roads are for the purpose of avoiding shock; the pneumatic tires, springs, and shock absorbers are all for the same purpose. The life of an automobile is in direct proportion to the shock to which it is subjected.

Human beings seem to realize the necessity of avoiding shock to their own systems and to the automobiles in which they drive, but I venture the opinion that if the shock to the automobile did not carry with it considerable discomfort to the human drivers (for there are really some human drivers of automo-

biles) there would not be so much consideration given to the reducing of the shock to the car.

I make this statement, because so little consideration has been given to the subject of shock in the operation of stationary machinery, textile machinery for instance—and looms in particular.

Do you know that because of the intermittent load, or shock of the picker stick on the shuttle, a loom bearing as well as all other bearings affected by this shock are more difficult to lubricate and wear sooner than bearings carrying a much heavier regular load? The shock breaks the oil film and permits metal to metal contact at the bearing. After the shock is over the oil rushes back and takes up its natural film.

Just as good tires, good springs and good shock absorbers are the secret to relieving automobiles from shock, so are VIM Leather Belting and Houghton's Absorbed Oils the secret to relieving stationary machinery, particularly looms, from the results of shock.

Just as all the rough riding cars are gasoline thieves, so are all shock driven machines power wasters.

Think this over, Honey Boy!

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# Proper Handling of Shuttles

WHEN a pair of new shuttles is needed for a plain dobby or tappet loom, or several pairs for a box loom, there is nothing to be gained by taking the first lot that comes to hand. Several important items have to be carefully considered before the final selection is made. These points may be placed in the following order:

(1) Grain. In selecting a pair, some six or eight shuttles should be placed with their backs upwards for the examination of the grain, and those taken out of the group that are nearest alike. A close-grained shuttle weighs heavier than one with a coarse grain, and is also likely to wear less rapidly. This would mean that in the course of wearing the open-grained shuttle would fail to lift the stop rod tongue high enough and the loom would bang off, whereas the dense-grained shuttle would work with satisfaction. To make this pair last longer, the bulkier shuttle would have to be filed down to the dimensions of the other, and the boxes re-set to give a proper lift to the stop rod tongue. This filing and adjustment may not be at all necessary if the shuttles are as near alike as possible at the beginning. There is also much more trouble in the braking and checking of the shuttles when there is a marked difference in the grain.

(2) Knots. When these are in the solid parts at either end of the shuttle, they are of no detriment, but if in the back or front of the hollowed-out part, it is a risky business using them in a pair, as they either crack or wear ridgy. Such shuttles cannot be altogether dispensed with, but may be reserved for taking the place of any that may be accidentally broken.

(3) Size. All the shuttles sent in one batch by the maker are not all the same size, and therefore a pair of calipers may be used to test the width of the shuttles. Variation in size gives a different lift to the stop rod tongue, and this has to be avoided.

Those which are nearest alike in this respect are best for working together, and especially in box looms. A difference in size also affects the braking of the shuttle, for the higher the stop rod tongue is lifted, the greater the spring pressure applied to the shuttle.

## Matching Shuttles.

When a shuttle has split or is damaged beyond repair, the sound one has to be measured, and another found as near like it as possible amongst the old ones. If the sound one is in poor condition, it had better be filed to get the back and bottom straight, or slightly hollow in

the centre before finding one to match. Having obtained the best results by filing, the one to go with it has to be the same size, or, if possible, be made the same size, both in width and depth.

The depth is necessary for this reason: In tappet and plain dobby looms there is a wooden shuttle guide bolted to the top and front side of the box back. If this shuttle guide was set right for the one that was broken, and the one to take its place was deeper, it would bind on the shuttle guide, and must be filed down to fit easily in the box.

On the other hand, if the selected shuttle was less in depth, it would rise in the box, and make the hole in the picker higher also, and this would alter the delivery of the shuttle.

(4) Weight. As already hinted, a heavier shuttle travels with a greater velocity than a light one, and it is therefore essential that the pair, or the group for box work, be of the same or as near the same weight as possible. This is arrived at by weighing a dozen or more shuttles at a time on a spring balance, and penciling the weight in ounces on the shuttle. Those of the same weight may then be paired or put into groups. Perhaps the quickest way for one pair is to test them on ordinary balance scales, taking the

weights off, and placing one shuttle on that side, and weighing it against the other. The better the scales balance, and the nearer they are to matching.

The average difference in the weight of new shuttles of the same make is two ounces, but such a difference, if used in a pair or a group is the cause of much unnecessary trouble. When these points are observed in shuttle selection, they are an asset as long as the shuttles last.

## Steeping With Oil.

Shuttle makers send their wares to the factory both in the steeped state and in the dry state. When they are in the dry state they are all the better for being steeped in oil before being used. An effective way of doing this is to smear them all over at the oil tank with spindle oil, and after the surplus has run off, to hang them up for air drying. This should be repeated for three or four days, so that the oil penetrates in to the wood. To steep them overhead in oil is to run the risk of the wood swelling and the shuttle lips becoming loose.

This having been accomplished, the next part of the preparation for worsted shuttles is to see that the spindle spring is sufficiently strong for the retention of the bobbin. A yarn brush is then placed through



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## Ponsol Red Violet RRNX Paste

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Ready solubility, coupled with highly satisfactory penetration and level dyeing properties permits its use on all types of machines.

Ponsol Red Violet RRNX Paste is used to a considerable extent as a shading color of light pinks and mode shades.

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## Practical Discussions

By

## Practical Men

### Spinner Frame Twister.

Editor:

Does it pay to make a spinning frame into a twister; or is it cheaper to buy regular twisting frames? Yarns.

### Profit Sharing.

Editor:

As there is so much said about profit sharing nowadays. We would like to get some ideas from those who have studied the subject or tried out some special system. In the opinion of mill men or textile economists what would be considered a good system? Could some good system be also applied to the overseers; and to the superintendents as well as to the operatives in general? Share Holder.

### Answer to Texas.

Editor:

In answer to Texas will say that any loom can be changed from right hand to left hand or vice versa by buying the few extra parts which may not be reversible.

Yankee.

### Roll Setting.

Editor:

I would like to ask the following questions through your Practical Discussion Pages:

For a mill to spin 30s and 40s yarn from 1-inch cotton, what is the best setting for the rolls on drawing, with 53 grain card sliver; front roll 1 1/4; 2 1/4 inches in diameter?

What is the best setting for slubbers with 1 1/4-inch front rolls and intermediate with 1 1/4-inch front roll and fine frames with 1 1/4 front roll.

When the rolls are set as close as you can get them and will not stop thin places in roving and yarn, is there anything else that will stop them? Is the cotton too short for 30s and 40s? Information.

### Answer to Georgia.

Editor:

In answer to Georgia will say that I tried out several different things to test the life of picker sticks and will give you a list of my tests.

In each case I used a picker stick made of good hickory stock. The results proved to be as follows:

Using an all-iron stick, the length of service was one second, then it bent out of shape.

Using stick covered all over with galvanized iron, the length of service was two weeks. The iron shattered off by bits.

Using a stick braced at picker race with belt hooks, the length of service was 3 weeks, the wood shattering and the clamps cutting into rawhide picker.

Using stick iron bound at picker race, the length of service was 3 weeks. The iron became loose and flew off.

Using stick wire banded about six inches apart, the length of service was 4 weeks. The bands burst.

Using stick bound all over with duck and iron bound picker race only, the length of service was six weeks. The reinforced ruptured. With the whole stick iron bound, the length of service was 5 weeks. The iron ruptured and flew off by bits.

Using a stick reinforced with wood screws and braced with clamps at the picker race only, the length of service was 9 weeks. Binding flew off into small parts.

Using stick with iron bound edge only, the length of service was 9 weeks. Binding flew off into small parts.

Using stick covered with two thicknesses of canvas, the length of service was 4 months. The covering then cracked.

Using a plain stick of good hickory stock, with no reinforcement put on, the length of service was 7 months, when it wore out.

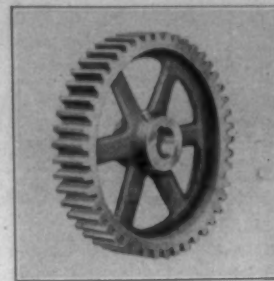
It will be noted that the best service was given by a bare picker stick of good quality. Husler.

### Banquet at Seneca.

L. C. Pressley, overseer spinning at the Seneca Company, Seneca, S. C., recently gave a turkey dinner to all his second hands and section men. During the evening Mr. Pressley made a very interesting talk concerning a number of subjects which affect the welfare of the employees and the company alike.

### Lockman Gives Oyster Supper.

In accordance with his annual custom, John S. Lockman, overseer spinning at the Lockhart plant of the Monarch Mills, Lockhart, S. C., recently tendered his second hands, section men and overhaulers an oyster supper. At the conclusion of the supper, F. D. Lockman, superintendent, made a very fine talk on "Appreciation." His remarks were followed by short talks from the other guests. Among those present were: J. H. Bailey, Henry B. Cananiss, Mack Carter, Fred Caldwell, Will Vanderford, F. J. Steen, Sam Brown, Chris Robinson, Jim Zimmerman, L. R. Parker, Curtis Barnes, George Furr, J. D. Lockman and Claude H. Lockman, superintendent of the Henrietta Mills, Caroleen, N. C.



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## Spinners To Meet At Textile School

The next meeting of the Spinners Section of the Southern Textile Association will be held at the Textile Department of the North Carolina State College, Raleigh, on February 5, according to announcement by F. Gordon Cobb, secretary. In announcing the meeting, Secretary Cobb says:

"Dean Nelson of the Textile Department of the North Carolina State College, Raleigh, North Carolina, has invited us to hold the next Spinners Sectional meeting at State College and the date has been definitely set for February 5th at 10 o'clock a. m. The meeting will be conducted by Carl R. Harris, Chairman, and C. M. Black, Assistant Chairman.

"We have sent out quite a number of form letters to North Carolina superintendents and spinners concerning this meeting, but Chairman Harris notified me that he has not received one reply to this date.

"I hope that when the North Carolina mill men see this notice that they will not only send the form letter in to Chairman Harris, but begin to make note of any question they would like to ask at this meeting.

"For the information of Textile men, will say that we have made arrangements with the American Society for testing materials to work in conjunction with them in setting up standards for textiles, and at this meeting we hope to begin the establishing of tentative standards at, at the sectional meetings, will be reported to the Southern Textile Association's semi-annual meeting, and if approved by the Association they will then be entered in our Book of Proceedings as the best standard we have been able to set up based on what the mills are actually doing at present.

"We hope to begin on such items as spindle speed, twist per inch, draft and breaking strength for print cloth numbers using American 1-inch cotton.

"As this sectional meeting is going into North Carolina we had hoped that a number of the fine yarn spinners would answer our form letters so that we could devote the major portion of this meeting to fine spinning, and we still hope the mill men will answer the form letters in time for this discussion to be carried out.

"Standardization is today the most important step toward industrial efficiency, and as we expect to discuss this subject at this meeting every mill man should be vitally interested.

## "A Trip Through the Whitin Machine Works"

The Whitin Machine Works, of Whitinsville, Mass., one of the leading textile machinery builders of the world, has just published a very interesting and attractive booklet "A Trip through the Whitin Machine Works." The foreword states that "it is the aim of this booklet to tell, as simply as concisely as possible, the story of the Whitin Machine Works; to describe the unique industrial village that has been built

up around it and to furnish bits of information, which, we hope, will prove of interest to all of those who pay us the honor of a visit."

The booklet admirably carries out this purpose. Beginning with a portrait of John C. Whitin, founder and first president of the company, it carries the reader into every department of the tremendous plant and presents very strikingly the unusual development of an industrial community that is outstanding among similar developments in the country.

Beautifully illustrated and printed, with about 50 pages of pictures of the officials, employees, exterior and interior views of the works and the manufacturing processes, the village and its numerous activities, the book is in every sense a credit to the organization to which it is devoted.

From its humble beginnings in 1831, when John C. Whitin made and patented his improved "Picker," the Whitin Machine Works have grown steadily, until they employ four thousand people in the manufacture and sale of many kinds of textile machinery, and ranks as one of the largest concerns of the textile industry in the world.

Some idea of the Work's dimensions and the amount of work done can be gained from the following facts:

Contains over 40 acres of floor space; has a foundry capacity of 150 tons per day; uses 4,500 tons of steel per year; uses 4 million feet of lumber per year; uses 20,000 tons of coal a year in Power House.

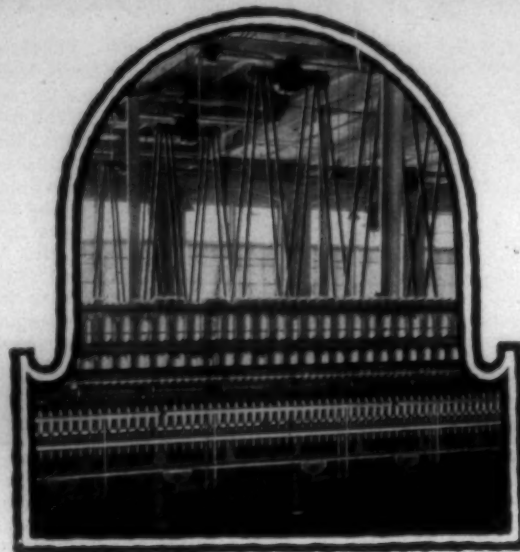
Southern mill men who have for years operated Whitin Machinery, but who have never had an opportunity of visiting the works, will find the book unusually interesting. Copies may be had upon application to the company. The edition is limited however, and requests for the book should be made promptly.

## Southern Spinners Bulletin

The weekly bulletin of the Southern Yarn Spinners Association says:

"The few transactions which have taken place in the yarn since the first of the year have been in the nature of purchases from dealers' stocks, in such small volume as to be easily taken care of without recourse to mill shipments. Prices remain irregular. Spinners prices are at an advance over dealers' prices and occasional sales from stocks made at slightly shaded prices from published quotations.

"For the present there appears to be no demand from consumers and spinners are content to await more settled cotton conditions before seeking forward business. Potentially, the position of the spinner is strong. Buyers have not contracted ahead for their supplies of yarn and yet are understood to have booked considerable forward business. There are no yarn stocks of any moment available either in dealers, consumers or spinners hands. The present prices when compared with the price of cotton show barely replacement values. Unquestionably demand will stimulate prices and if production is regulated by the volume of demand, good business should necessarily ensue."



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# Dyeing of Silk and Cotton Hose

**P**ROMINENCE has been given in many practical addresses delivered recently at Nottingham University, England, to subjects closely affecting the hosiery industry, further interest being imparted to the work by a discourse on November 26, by H. D. Murford, of the British Dyestuff Corporation, Manchester, on the dyeing of natural silk hose containing cotton, the matter being illustrated by various specimens of finished materials; the proceedings, which had been arranged under the auspices of the Midland branch of the Society of Dyers and Colorists, adding to a long list of valuable meetings for which that organization has been from time to time responsible. Mr. Mudford observed that the recent increase in the popularity of natural silk stockings had aroused particular interest with regard to the dyeing of such hose, and in particular as to the methods of obtaining solid shades on both the panel and cotton portions. In the raw state, natural silk might be regarded as composed of two constituents differing considerably in their properties, namely, the actual silk fibre as seen in the finished article, and an outer covering known as gum or sericin. It was this gum which gave the raw silk its uninteresting and unattractive appearance. The gum, however, was fairly soluble in hot water, and might be readily dissolved by a weak alkali or a solution of soap; the interior portion on the contrary was entirely unaffected by soap or weak alkali, which allowed of their use as a means of degumming. The amount of gum present in raw silk averaged about 20 per cent to 25 per cent. In many branches of the silk industry this loss of weight was corrected by means of either vegetable or mineral weighting. This, however, was not usual in the case of hosiery. In color, the gum varied, Italian silks having a rich golden yellow color before degumming, whereas China silks were white. The orthodox method for the removal of the gum was to work the silk in a solution of soap containing from eight parts to ten parts per 1,000 for an hour at or near the boil. It was desirable but not necessary to change this soap bath after half-an-hour's working. An alternative method of degumming now receiving considerable attention was the use of a mixture of soluble oil and sodium silicate. The silk was worked for an hour, at or near the boil, in a solution containing about eight parts to ten parts of Turkey red oil and eight parts to ten parts of sodium silicate (70 per cent Tw.) per 1,000. In this case also it was no disadvantage to change the liquor after dyeing properties, natural silk might be regarded in some respects as a most accommodating fibre, inasmuch as most classes of dyestuffs might be applied to it according to particular requirements.

## Solid Dyestuffs.

Having referred to methods in use for applying the various classes of dyestuffs to natural silk, Mr. Mud-

ford pointed out that the acid dyestuffs have a very wide use for the dyeing of natural silk, this class including colors of varied fastness and great utility. Many of these dyestuffs yielded shades as brilliant as those produced by the use of basic colors and others having light fastness which might be described as almost excellent. It was usual to apply these colors for a bath acidified with sulphuric acid, dyeing being carried out at or near the boil. In some cases it was preferable to use acetic acid instead of sulphuric acid. The average silk dyer prepared his dye bath with the boiling-off liquor obtained when degumming with soap, this being solidified with acetic or sulphuric acid, as desired. The use of this boiled-off liquor contributed very considerably to level dyeing, particularly when applying colors which tended to exhaust rapidly. Among this class was to be found several colors which dyed this fibre without the use of acid, an addition of common or Glauber's salt only being necessary. These dyes were of particular interest to the dyer of silk hose, and it was often necessary to use them for shading, if not completely dyeing, the silk portion of the stocking. Such colors were Citronine Y conc., Coomassie Milling Scarlet G, and Coomassie navy blue 2RNX, to name a few of them only which had proved their value in that respect. These stained cotton little, or not at all, and were, therefore, of the utmost value for shading and also worked well together in producing current hosiery shades. The washing fastness, therefore, of these three colors was such that the shades obtained from their use would withstand the ordinary domestic washing to which silk hose was subjected. For the production of shades of good all-round fastness the direct cotton dyestuffs were of great interest. Many members of this class were of very good light fastness, and on the whole the washing fastness was rather superior to that of the solid colors. These dyestuffs were usually applied to natural silk from a bath containing common of Glauber's salt. As in the case of acid colors, a boiled-off liquor bath was often desirable. In cases where the affinity of the dyestuff was low, it was usual to exhaust the dyebath with acetic or even formic acid. Dyeing was usually carried out at or near the boil. Among the direct cotton colors were those which were improved in fastness by after treatment or by diazotization and development. The latter process being lengthy, was not of interest to hosiery dyers, but, after treatment with formaldehyde, was of interest for the production of blacks fast to washing. The dyestuffs suitable for this process were Chlorazol black No. 1 and Chlorazol black LF, both of which, on after treatment, yielded good full blacks on natural silk, having good washing fastness. Mordant dyestuffs are extensively used in the silk trade for producing shades fast to boiling soap. The silk is mordanted by steeping over-

night in a solution of chromium fluoride for chrome mordant, and aluminium sulphate for alum mordant. The dyestuffs are applied at the boil, acetic acid being used to exhaust the bath, if desired. Although these were of no interest to hosiery dyers, the reference served to illustrate the properties of the silk fibre. Vat colors were also of no interest to dyers of silk hose. They were applied to natural silk in the same way as for cotton, with the exception that the amount of caustic soda was reduced and a protective colloid often used. Members of this series of color were used where shades exceptionally fast to light and washing were demanded. The methods of applying sulphur colors to silk were similar to those for dyeing cotton. It was usual, however, to add the bath glue glucose or a suitable protective colloid to protect the silk against the sodium sulphide. Messrs. Lodge and Evans had recommended the addition of ammonium sulphate to the bath, thereby converting the sodium sulphide to ammonium sulphide, and so obviating the risk of damaging the silk. An alternative method which they had brought out was based on the solubility of sulphur colors in the sodium sulphite. The dyestuff was dissolved by boiling with sodium sulphite, and was subsequently reduced by means of sodium hydro-sulphite, dyeing proceeding without any further assistant being added.

## Degumming Processes.

Before dyeing, natural silk hose was subjected to one of the degumming processes already described. Both methods he had found satisfactory, but, owing to the fact that it had not yet been possible to compare them under identical conditions, he hesitated to draw comparisons. The mixture of soluble oil and silicate of soda was certainly thorough, and he should say would prove cheaper than soap. A product composed of Turkey-red oil and sodium silicate in suitable proportions was already on the market as a degumming agent. After degumming, the goods were thoroughly rinsed in hot water and were then ready for bleaching or dyeing. Should bleaching be necessary, it was best carried out by means of hydrogen peroxide. The bath was prepared by using: Five parts in 200 of hydrogen peroxide 20 vol. and one part in 200 of sodium silicate (70 per cent Tw.). The degummed hose was entered and the bath raised to boiling heat, the goods being allowed to remain in the bath from one to one-and-a-half hours, or longer if necessary. Should this be the desire, the bath was prepared as for bleaching, and to this was added the required degumming agent. After boiling for about an hour, the goods were well rinsed. It was the opinion of many dyers that undue importance was placed upon what might be regarded as small differences in shade between the panel of a stocking and its top or foot. The fact remained, however, that the tendency was in the direction of a

high standard of solidity. The methods, therefore, of obtaining solid results, together with the conditions favorable to their production, were worthy of more than passing attention. In speaking of a solid shade, one naturally implied equality of both depth and tone. A slight difference in tone was, however, much more noticeable than a difference in depth. When considering this matter, therefore, it was only reasonable to realize the somewhat greater importance of similarity of tone over equality of depth. This was not intended to condone large differences in depth, but merely to point out the relative importance of these two factors. When considering the dyeing of natural silk hose containing cotton, it was natural to turn to the direct cotton dyestuffs and select such colors as dyed the two fibres to approximately the same shade, at the same time noting the appropriate conditions. It had been found that some direct cotton dyestuffs, while dyeing the fibres to approximately equal depth, yielded shades of differing tone, so that it might be necessary to bring the material on shade by the use, on the one hand, of a neutral dyeing acid color for the silk, or on the other hand of a direct cotton dyestuff which reserved the silk for the cotton. As examples, direct violet, such as Chlorazol violet and Chlorazol fast helio BK, gave much redder shades on natural silk than on cotton, and it was possible to correct this by using along with the cotton color a small amount of Coomassie violet R. Certain direct browns, such as Chlorazol brown G and Chlorazol brown LF, gave redder shades on cotton than on silk. In such cases it had been found satisfactory to use Chlorazol yellow GX, which from a natural bath left silk practically unstained. The most suitable method of obtaining solid results when using direct cotton dyestuffs was to dye with the addition of Glauber's salt or common salt, dyeing being carried out near the boil.

## Equality.

Whenever possible, it was as well to select dyestuffs which, as far as possible, gave equality in depth and tone on both fibres, so as to avoid the necessity of using colors for shading one fibre only. This, of course, was not always possible. Having selected the colors which yielded approximately solid shades, the question of compound shades naturally arose. It did not follow that these colors would give solid results when in combination; as an example, Chlorazol brown G, Chlorazol dark blue B and Chlorazol green BN individually gave shades of approximately equal depth on both cotton and silk. A combination of Chlorazol brown G and Chlorazol dark blue B, however, was very unsatisfactory, as a much bluer shade was obtained on the cotton than on the silk. The use of a mixture of Chlorazol brown G and Chlorazol green BN, on the other hand, gave a result which, from the point of



view of shade, was quite satisfactory. It was a fact that Chlorazol dark blue B as an individual showed somewhat greater preference for the cotton than Chlorazol brown G, but the combination had every appearance of considerably intensifying this difference. For the production of current hosiery shades, a combination which had shown great promise was that of Chlorazol brown G, Chlorazol green BN, and Chlorazol fast red IOB. It was, however, necessary to use a little Chlorazol yellow GX for the purpose of bringing the shade of the cotton into line with that of the silk. A combination rather superior to that previously mentioned was Chlorazol fast red FG, Chlorazol fast yellow B, and Chlorazol fast black BK. These colors were considerably faster to light than the previous ones, and as regarded ladies' hose, present-day fashions seemed to indicate that light fastness should not be entirely disregarded. In addition, these colors stood scrooping with acetic acid, and as a scroop finish was often demanded, the use of these dyestuffs was obviously advantageous. Another dyestuff worthy of mention was Chlorazol brown LF. This color in self shades produced fawns and brown tones which were to be found in all hosiery pattern cards. The shade on the cotton required a slight correction with Chlorazol yellow GX, but in depth it seemed to the fact that sometimes unmercerized cotton and at other times mercerized cotton was used for the tops, etc., it would be easily recognized that the relative affinity of the cotton and

silk would not always be the same. In cases where mercerized cotton was used, it was usual for the cotton to take up the greater portion of the dyestuff, leaving the silk very much paler. This might be corrected in the case of the last four colors mentioned by dyeing with an addition of about 0.5 per cent to  $2\frac{1}{2}$  per cent of acetic acid on the weight of goods, in addition to common or Glauber's salt. It was necessary to control this amount of acid very carefully; otherwise, in case of an excess being used the silk would take up too great a quantity of the dyestuff, leaving the cotton very much paler. The use of acetic acid in this connection might be extended to dyestuffs other than those already mentioned. As an example, Chlorazol fast orange D left silk undyed when using a neutral dye bath. By the use of acetic acid a solid result might be obtained. It should be recognized, however, that the amount of salt required was not necessarily the same for all dyestuffs. Chlorazol fast orange D required as much as 3 per cent of acetic acid, owing to the fact that is natural affinity for silk was rather low. It was his opinion that, when dyeing silk hose containing mercerized cotton, it was better to use neutral dyeing acid colors for the silk rather than to make additions of acid. The use of acid caused direct cotton dyestuffs to exhaust more rapidly than otherwise would be the case, and this might lead to improper penetration of heels and seams, and also to unevenness in the silk panel. In addition, the amount of acid had to be exact, and varied with

the depth of the shade, paler shades requiring more acid than the deeper ones. This fact alone made it a risky method to adopt on the large scale. The dyeing of delicate shades by methods involving rapid exhaustion would lead to the expectation of unlevel and badly penetrated results. In order to facilitate the penetration of heels and seams, it was often considered preferable to dye either from a soap or an alkaline bath, and in both cases the silk was left very nearly undyed, necessitating the use of solid colors.

The neutral dyeing acid colors already mentioned dyed well from an alkaline bath, and might therefore be used in such cases. Regarding the striking of heels and seams, the selection of suitable dyestuffs was an important factor, and for the production of current hosiery shades the following had proved themselves useful in that respect, when applied from a neutral bath: As a basis of grey shades, Chlorazol fast black BK; for champagnes, fawns and brown tones generally, a combination of Chlorazol brown LF and Chlorazol fast orange AG.

### New Type Jacquard

Many attempts to improve jacquard mechanism have been made during the past twenty-five years. The chief aim has been to reduce the time and consequently the cost of applying a new design to the loom. On many occasions we have referred to the earlier photographic experiments of Sezebanik and others, and lately have drawn attention

to the Carver mechanism, which is much in advance of anything previously attempted. Recently our attention has been drawn to a new mechanism invented by a German named Deiner, which presents many features of novelty. It is stated that Deiner is at present in prison, and it is proposed he should be liberated in order that he may be in a position to complete his device. As far as we can judge from the information received, Deiner's object is merely to dispense with cards. He projects on to a wax cylinder his design, and apparently the depth or shallowness of the impression secured represents the shading or coloring of the ultimate fabric. Apparently, the usual jacquard needles are employed which impinge against the waxen cylinder, and are, we suppose, forced back or not according to the depression or otherwise of the surface of the wax. Apparently there is a feeling amongst manufacturers that Deiner should be given the opportunity of completing his device in time for the Leipzig fair, and it is stated even if it fails it will "calm those manufacturers who are rather anxious about

### Geo. Bell to Assist in Engineering on Cannon Mill.

Geo. C. Bell, mill engineer and architect of Charlotte, has been employed by the Cannon Manufacturing Company, Kannapolis, N. C., in connection with the layout of the textile machinery in the 50,000-spindle addition recently announced. The effects of the invention.

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## Cotton Mill Processes and Calculations

By D. A. Tompkins.

Copy Revised for Third Edition.

(Continued From Last Week)

When the warper is first started, the belt may be shifted on the slow pulley which will start the machine at a reduced speed. When the slack is all taken up, the belt may be shifted on to the regular fast pulley.

The belt shifter is usually connected to a treadle, so that the whole operation of starting slow and speeding up may be performed in a moment with the foot.

208. When beam has run full, it is taken off ("doffed") and carried away on a beam truck, and an empty beam is put in place. The old spools are taken out of creel and full ones put in their place, one at a time, tying the end from each new spool, as put in, to the corresponding yarn from old spool. Generally, the spool does not run empty; but as it does not hold enough for two warp beams, it is found better to take it out and fill it up again at the spooler.

It requires about two hours to doff, re-creel and start a new beam.

### PRODUCTION.

209. The cylinder is usually about 18 inches diameter, and runs 30 to 50 revolutions per minute. Its surface speed is therefore 50 to 70 yards per minute.

Since the yarn beam revolves by surface contact with this cylinder, the surface speed of cylinder, as above, will be the number of yards per minute that will be warped from each spool. If machine is running 70 yards per minute, the yards per day of 10 hours from each spool would be  $70 \times 60 \times 10 = 42,000$ , if running all the time. From 30 to 40 per cent. must be allowed for stoppages, so that the actual production would be about 28,000 yards of warp per day. If there are 450 spools in creel the grand total of yarn warper per day would be  $(28,000 \times 450 =)$  12,600,000 yards, or 15,000 hanks. This is about the right speed for No. 20. If the yarn is No. 20, the weight would be 750 pounds.

Finer yarn should run slower. No. 30 should not exceed 60 yards per minute. The production per day would at this speed be 60-70 of 15,000, or say 13,000 hanks or 433 pounds.

210. An average warper beam has a barrel 9 inches in diameter and  $54\frac{1}{4}$  inches long. The heads are 26 inches diameter. Of No. 20 yarn from 450 spools, it will hold 12,000 yards or 321 pounds. Thus a day's production of No. 20 is a little more than 2 beams. Of No. 30 yarn from 450 spools, it will hold 24,000 yards or 429 pounds. Thus a day's production of No. 30 is about 1 beam.

The speed of driving pulley must be determined by the gearing, if any, between it and the cylinder.

211. As in the case of the spooler, a warper will run at a much higher speed than is good for the yarn. The speed decided upon is generally a compromise between quantity and quality. It is made faster or slower, according as the one or the other is most desirable under the circumstances.

Generally speaking, one warper will take the product of 1,200 to 1,500 warp spindles, or 100 spooler spindles.

### GENERAL DATA.

212. A beam warper, including creel for 450 spools, will occupy a space of about 10 feet wide by 15 feet long. The



length may be reduced 1 foot if desired, by placing creel nearer the machine.

About 18 warp beams are necessary for each slasher in use.

From the fact that warp beams are carried for the next process to the slasher, they are sometimes called "slasher beams." They are sometimes also called "section beams."

The weight of a warper, complete with creel and beams, is about 3,000 pounds.

The machine is usually driven with a 2-inch belt.

The speed of the driving pulley is usually 150 to 200. The power required is about  $\frac{1}{2}$  horse power.

The "hand" of the machine is determined by standing in front (or at beam) and noting whether driving pulleys are on right or left hand.

#### SPECIFICATIONS.

213. Following is a sample blank to be filled out in ordering beam warpers:

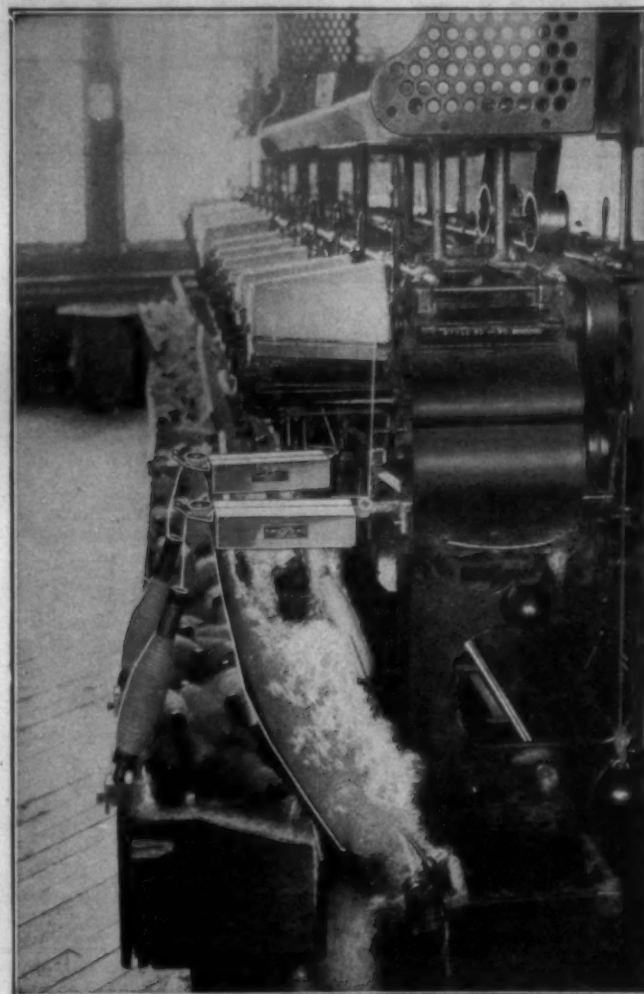
Number of Warpers \_\_\_\_\_  
 Number Right Hand \_\_\_\_\_  
 Number Left Hand \_\_\_\_\_  
 Diameter of Cylinder \_\_\_\_\_  
 Length of Cylinder \_\_\_\_\_  
 Diameter of Beam Heads \_\_\_\_\_  
 Diameter of Beam Barrels \_\_\_\_\_  
 Number of Beams \_\_\_\_\_  
 Number of Yards wanted per Wrap \_\_\_\_\_  
 Diameter of Driving Pulley \_\_\_\_\_  
 Speed of Driving Pulley \_\_\_\_\_  
 Belted from Above or Below \_\_\_\_\_  
 Number of Yarn to Start on \_\_\_\_\_  
 Size of Spool in Creel \_\_\_\_\_  
 Length of Skewer in Spool \_\_\_\_\_  
 Number of Spools in Creel \_\_\_\_\_  
 Iron or Wood, or Glass steps in Creel \_\_\_\_\_  
 Rising or Falling Slack Roll \_\_\_\_\_  
 Send Sample Spool \_\_\_\_\_  
 Send Sample Skewer \_\_\_\_\_  
 Maker \_\_\_\_\_  
 Purchaser \_\_\_\_\_  
 Price \_\_\_\_\_  
 Terms \_\_\_\_\_  
 Remarks \_\_\_\_\_

214. The next machine to the warper is the slasher, which is a machine for putting "size" or starch on the yarn.

Slasher.—Fig. 46.—LETTERING.

- A. Superfluous Beams in Creel.
- B. Warp Beams (in use) in Creel.
- C. Immersion Roll.
- D. Squeeze Rolls.
- E. Top Rolls.
- F. Small Cylinder.
- G. Large Cylinder.
- H. Hollow Shaft of Cylinder.
- K. Friction Wheels for Shaft.
- L. Lease Rods or Split Rods.
- M. Fan.
- N. Reed, or Heck.
- Q. Front Roll.
- S. Loom Beam.
- T. Presser Roll.
- U. Presser Roll Counter Weight.

(Continued on Page 27)



## The Truth About Slubs

It does not require inventions to make slubs, but often they are made, and that is another story.

We wish to tell you that the Eclipse Automatic Yarn Cleaner is sure death to slubs. The Eclipse Cleaner not only catches all the slubs but thoroughly removes all the dirt in the yarn.

Many knitting mills and spinning plants realize the extreme value of the Eclipse Cleaner, and are equipping their entire winding capacity with the Eclipse Cleaners. The basic principle of good knitting and weaving is thoroughly clean yarn.

Why make yourself believe you are getting the best results when you can absolutely improve your yarn with the Eclipse Cleaner.

The Eclipse Cleaner is easily attached to your winder. It does not add any additional cost to your winding costs. Upon request we will cheerfully give you a demonstration.

**Eclipse Textile Devices, Inc.**  
**Elmira, N. Y.**

Makers of

Automatic Yarn Cleaner, Automatic Stop Motion, Yarn Tension Device  
 Eclipse Van Ness Dyeing Machine



# SOUTHERN TEXTILE BULLETIN

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Managing Editor  
Associate Editor  
Business Manager

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## ADVERTISING

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## Fancy Weavers

THE following is an extract from a letter received last week:

"We are thinking very seriously of putting our mill, or a part of it, on finer goods, putting in dobbies, using some silk and rayon, making a nice line of dress goods and draperies. We are writing to ask if you know of a first-class man who thoroughly understands this business, one that can figure cost and designing and thoroughly understands the operation of dobbies. We will not want this man to act as overseer but to have charge of the designing and overlook the fancy part of the mill."

This is a sample of the requests that come to us from time to time and which we find it exceedingly difficult to answer.

The South is going more and more on silk and rayon goods and there are hundreds of men who are firmly convinced in their own minds that they are capable of handling the job mentioned above, but there are comparatively few whom we would care to take the risk of recommending.

There are hundreds who can take one loom or a few looms and make beautiful and perfect goods, but are lacking in the executive ability or experience necessary for the handling of a room of any size.

If we recommend such a man on a rayon and cotton mixture job such as above stated, he may get the room in such condition that the mill will lose thousands of dollars before his errors can be corrected.

We know one fancy mill that was bankrupted largely as the result of three men whom they employed in succession. Two of the men are among the best weavers in the South and the other claimed to have had

considerable experience on fancies in the North.

They thought that they could handle the proposition but it got away from each of them, and while they lost their jobs, the mill lost money heavily as the result of their failure to accomplish results.

With a mill of that kind there is always the anticipation and hope that the kinks and weak points will be eliminated and it is easy to go on from week to week and month to month always expecting success but steadily losing money.

When we received the above letter our first inclination was to recommend a certain man, but only last week a man by whom he was formerly employed said to us:

"— knows a loom thoroughly and understands fancy weaving but he never takes cost into consideration. When we would get a sample of twelve harness goods and the customer was satisfied with a twelve harness pattern— would often try to change it so that he could use twenty harnesses. He always wanted to do something different at an extra cost to us."

That statement represents many who claim to be fancy weavers and designers, but lose sight of the fact that no matter how satisfactory it may be to produce a beautiful piece of goods, the real object in operating a mill is to make money.

From our observations we advise those who are selecting superintendents, overseers and designers for fancy mills to avoid two classes of men.

First—The man who can do wonders with one loom but is devoid of the executive ability or common sense necessary to produce results from an entire weave room.

Second—The man who has a mania for making new fabrics but

pays little attention to the question of costs and profits.

The South is developing rapidly in fancy weaving, especially in the jacquard and dobby weaving of silk and rayon mixed with cotton yarns, and many men have learned quickly and become well qualified to handle such work.

Those who are seeking to develop as fancy weavers should take into consideration the matters mentioned in this editorial, and while studying fancy weaving and designing should devote some time to the question of system and management of weave rooms and to determining the cost of fabrics.

## No The Voice Of An Ally

WITH more than a column of vituperation, Tyre C. Taylor, of Cambridge, Mass., no doubt connected with one of the Meddling Departments of Harvard University, which has played a big part in destroying the industries of New England, has rushed to the defense of the Meddling Departments of the University of North Carolina.

Mr. Taylor refers to the cotton manufacturers of North Carolina as cement-headed but fails to explain why it is a function of a University to cure the social and economic ills of a State.

We have stated that we thought our old enemies were the real force behind this movement to investigate the cotton manufacturing industry of North Carolina and the effusion of Mr. Taylor throws some light upon this point, for he says:

"There have been other motives behind this Southward movement of industry. In New England labor is organized. The statutes in force in these States regulating child labor are a great deal more far-reaching than are the corresponding statutes in North Carolina. The opposition of the South generally to the recent attempt to enact a Federal law on the subject is remembered: The old 'States' rights' doctrine was tortured into an excuse for opposing this humane legislation.

"If child labor laws are so lax as to attract people to the State who are willing to take advantage of such a situation to profit themselves—and at this point it may as well be admitted that the child labor situation in the South is a National disgrace—these laws should be amended and brought into line with the trend of similar legislation in other parts of the civilized world."

So Mr. Taylor, of Cambridge, Mass., makes clear his position, and it is easy to see with what crowd he runs.

He is so closely in touch with the Meddling Department of the University of North Carolina and so ardent an ally that he rushes to their defense.

The plot thickens and we think more of our statement that the hand of our ancient enemies could be seen in the "outside financed" investigation in North Carolina.

The untrue report, already broadcasted, that 50 per cent of the children in one mill were feeble minded, was by no means displeasing to the National Child Labor Committee and those who seek the extension of Federal control and the reports that would have been made had free access been given can well be imagined.

The statements of Mr. Taylor are those we always expect and are false. Any child that can legally work in any Southern cotton mill, could legally work in any cotton mill in Massachusetts.

No child under 14 can work in any Southern mill and Massachusetts permits both boys and girls of 14 to be employed in mills.

If a few more men like Mr. Tyre C. Taylor rush into print we will learn the real reason why the Rockefeller Institute of New York is spending \$50,000 for investigations in North Carolina and are doing so under the cloak of the University of North Carolina.

## Up To The Presbyterians

WHEN we called attention to the suggested play, "Children of the Cotton Mills," which appeared in "Home and Foreign Fields," the organ of the Baptist Sunday School Board, the leading Baptists among the cotton mill men wrote rather warm letters to Home and Foreign Fields protesting against the gross misrepresentations.

G. S. Dobbins, editor of Home and Foreign Fields, very promptly expressed his regret that the play appeared in his paper and stated that it was clipped from the "Missionary Survey," published by the Presbyterian Committee of Publication, Richmond, Va.

Letters addressed to the Missionary Survey asking for information about Mrs. Moffit Rhodes, the author of the play, have produced no reply.

The Baptists have done their part in determining the responsibility for the publication of such a grossly false and misleading article and it is now up to the Presbyterians.

## White Rats

IN a newspaper report from Philadelphia we notice the following:

"At the Wistar Institute of Anatomy and Bio-Chemistry of the University of Pennsylvania, equipment costing \$60,000 is maintained and a staff of several men is required to care for the propagating of white rats.

"They are valued for scientific research because of the similarity of their structure, growth and digestive processes to those of man."

We suggest to the evolutionists that, according to the above, it would be much easier to prove man is descended from a white rat than from a monkey.

The monkey logic of the evolutionists bridges over all missing items with the statements "this must be true" or "it is reasonable to assume" and it would be just as easy or possibly easier to apply the same logic to white rat evolution.

There is one striking difference between the anti-evolutionist and the evolutionist.

The anti-evolutionist has no objection to any man believing that he is descended from a monkey or openly stating such belief.

The evolutionist gets angry with everybody who does not accept his statements and he abuses everybody who denies a belief in evolution or calls attention to the "bridging" that is necessary in order to make the evolution theory plausible.



## Personal News

J. L. Wilson, of Hight Point, N. C., is now located at Schoofield, Va.

John B. Wright has resigned as superintendent of the Nokomis Mills, Lexington, N. C.

J. E. Porterfield has become overseer of carding at the American Cotton Mills, Bessemer City, N. C.

J. T. Hull has resigned as overseer carding at the American Mills, Bessemer City, N. C.

J. A. Hitt, of Ninety-Six, S. C., has accepted a position with Aragon-Baldwin Mills, Whitmire, S. C.

Horace C. Byars has become overseer of spinning at the Drayton Mills, Spartanburg, S. C.

W. F. Lankford has resigned as night overseer of spinning at the Wymojo Mill, Rock Hill, S. C.

R. A. Stewart has been promoted from second hand to overseer of night spinning at the Wymojo Mill, Rock Hill, S. C.

W. J. Hamilton, of Carhart Mills, Rock Hill, S. C., is now overseer of night carding at the Wymojo Mills, of the same place.

S. M. Sloan, of Greenville, S. C., has been appointed representative in South Carolina for the Carolina Specialty Company, of Charlotte.

W. H. Muse has resigned as assistant superintendent of the Locke Mills, Concord, N. C., to accept a position at the Erwin Mill, Erwin, N. C.

A. G. Dudley, president of the Athens Manufacturing Company, and the Climax Hosiery Mills, Athens, Ga., and a leader in civic, religious and social affairs, has been elected mayor of Athens.

E. D. Grant has resigned as night overseer of carding at the Wymojo Mills, Rock Hill, S. C., and accepted a position at the Red River Mills, of the same place.

P. S. Kay, of Lowell, Mass., is now general superintendent of the Brown and Norcott Mills, Concord, N. C., as reported last week. He succeeds Jacob Stirewalt at the Brown Mill and C. D. McDonald at the Norcott Mills.

John T. Lowe, secretary and treasurer of the Nokomis Mills, Lexington, N. C., for the past twelve years, will not be identified with the new management.

S. W. Rabb, superintendent of the Erlanger Mills, Lexington, N. C., will also act as assistant general manager of the Nokomis Mills, which were recently bought by the Erlangers.

L. H. Beck has resigned as general superintendent of the Cochran Cotton Mill Company, Cochran and Hawkinsville, Ga., to become superintendent of the Griffin Manufacturing Company, Griffin, Ga.

H. L. Benson has been promoted to second hand in carding at the Magrace Mills, Kings Mountain, N. C.

R. C. Young has accepted a position as traveling representative of the Borne, Scrymser Co. He will travel North and South Carolina, assisting S. L. Sevier, Southern agent for the company.

Howard D. Townsend has been promoted from overseer of carding at the Erlanger Mills, Lexington, N. C., to superintendent of the Nokomis Mill, of the same place, which was recently purchased by the Erlanger interests. Mr. Townsend is a member of the North Carolina State Senate.

### H. Linday Succeeds Zimmerman.

H. Linday, of Greenville, has succeeded Sam R. Zimmerman as purchasing agent for the following mills: The five plants of the Victor-Monaghan Company; Anniston Manufacturing Company, Anniston, Ala.; Dunbar Mills, Greenville; Piedmont Manufacturing Company, Piedmont, S. C.; Seneca Company, Seneca, S. C.; Victoria Cotton Mills, Rock Hill, S. C., and Wallace Manufacturing Company, Jonesville, S. C.

### A. Klipstein Dead.

August Klipstein, president of A. Klipstein & Co., New York, died at his home in that city on January 8.

Mr. Klipstein, who had been identified with the dyestuff and chemical industry in this country for more than fifty years, was born in Germany in 1848. He was educated at the schools at Frankfurt-on-the-Main and began his business life with a company dealing in chemicals. His duties later carried him to London and Paris. Coming to America in 1871, Mr. Klipstein began a career whose interests were far-reaching and important. In 1872, he established himself in business in New York under the style of A. Klipstein and began the distribution of dyestuffs. He secured the agency for the United States and Canada for the Society of Chemical Industry in Basle, Switzerland, and very successfully handled this agency until 1920.

In 1894 he incorporated the company of A. Klipstein & Co., and actively directed its affairs until the time of his death. He was also largely interested in the Bulls Ferry Chemical Corporation, one of the leading manufacturers of softeners, sizes and sulphonated oils in this country. The products of this company are sold exclusively through A. Klipstein & Co.

Mr. Klipstein's work covered the entire range of the coal tar dyestuff industry. He was a pioneer in the introduction of many new domestic dyes and was generally recognized as an outstanding figure in the dyestuff industry both in America and Europe.

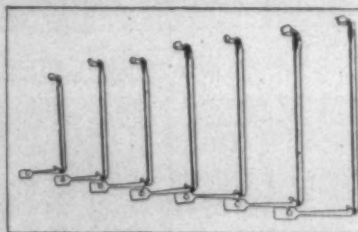
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All Types Of Warp  
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IT is as important to take stock of the condition of your machinery as it is to know the quantity of raw and manufactured material on hand. We can "take stock" of your machinery condition, and if it is not giving 100 per cent production, our unexcelled Repair Department will put it in shape to produce at capacity, and you are going to need it soon.

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Southern Spindle & Flyer Co., Inc.

Charlotte, N. C.

"We Manufacture,

Overhaul and Repair Cotton Mill Machinery"

W. H. MONTY,  
Pres. and Treas.

W. H. HUTCHINS,  
V.-Pres. and Sec.



## MILL NEWS ITEMS OF INTEREST

**Kernersville, N. C.**—The Vance Knitting Co., has filed an amendment to its charter increasing the capital stock from \$125,000 to \$300,000.

**Center Point, Texas.**—S. E. Bomar is interested in organizing a company to build a cotton mill here. He has undertaken a survey of prospective sites on the Guadalupe River and expects to make definite announcement of his plans within a short time.

**Turnersburg, N. C.**—The Laura Ellen Watts Cotton Mill Company, will be offered at public sale at Statesville on January 18 by D. M. Ausley. The sale is ordered to satisfy a deed of trust for \$25,000 made by the mill company in February 1923.

The mill has 1,600 spindles equipped for making coarse carded yarns.

**Anderson, S. C.**—The Lassie Mills have been incorporated with a capital stock of \$200,000 to manufacture the well known Lad Lassie cloth. The company will use the addition now being built to the Toxaway Mills and will install 300 looms upon completion of the building, as recently noted.

S. H. Lander will be president of the company and E. P. Coffield, superintendent and manager. Mr. Lander was assistant treasurer of the Brogon Mills before they were sold to the Appleton Mills and Mr. Coffield was superintendent of the Brogon plant.

The rights to the manufacture of Lad Lassie cloth were retained when the Gossett interests sold the Brogon Mills to the Appleton Company.

**Spindale, N. C.**—The Elmore company of Spindale, manufacturer of mercerized yarns, has just awarded contract for installing the new power plant to Charles W. Christian, heating and power piping contractor of Charlotte, whose engineering department is also preparing the piping layout.

The new plant is to be unique in that it will utilize exhaust steam in connection with a system of evaporators, the design of the piping having been originated especially for this job. The highest efficiency in operation has been the aim of the engineers in designing this plant and every available heat unit will be utilized.

Boilers of the Manning type are being installed to provide steam. An engine generator set of the most approved type has been purchased as well as feed water heaters, oil and steam separators and automatic equipment of various types, all of the most up-to-date pattern.

Exhaust steam will be used in the evaporators, which have been designed to recover soda used in the process work done by the company and which would be otherwise wasted.

**Stonewall, Miss.**—The Stonewall Cotton Mills will in the future sell their output through Lee and Franz Company, New York. The mill manufactures 36-indigo chambrays and similar fabrics.

**Asheville, N. C.**—A contract was let to the Fiske Carter Construction Company, of Greenville, to construct a filtering plant of 5,000,000-gallon capacity for the Sales Bleachery. Work is to begin in the near future and will be rushed to completion. The contract was let from the office of J. E. Serrine & Co., and of the number of firms bidding the Greenville concern was awarded the contract.

**Elberton, Ga.**—The Elberton Chamber of Commerce has just announced that the Carhartt Cotton Mills here will be started in a few days now under new management with a payroll of over \$10,000 weekly to begin with, and that this will double in a few weeks as soon as there is time to put on double shift labor.

The Carhartt Mills have been closed for some months, and the local chamber of commerce announces

that Frank W. Van Ness and associates, of New York city, industrial engineers, have closed the trade for the local plant, the purchase being made on behalf of a new local corporation, capital for which has been subscribed by Connecticut cotton mill men and partly by local parties.

This mill has 9,000 spindles and 250 looms. Also, is has a fully equipped dyeing plant, and is in shape to begin operation at once. The plant owns forty acres of land right in the heart of Elberton, with plenty of dwellings on it to house their labor.

Mr. Van Ness, who has been here for some days, states they have already offers of contracts for enough denims and other goods from the mill's output to keep the mill busy for months running at full time.

Van Ness and associates are already operating the mill known as Beaver Mills, formerly Pearl Mills, of this county, and their success with that enterprise makes all here feel they will make the Carhartt Mill a big asset to the town and county.

**Spartanburg, S. C.**—Operation of the Model mill, which has been under process of enlargement for several months, will begin here on

January 21 or thereabouts, according to an announcement made by officials of Lockwood, Greene and company, architects in charge of the work.

The mill will be run under the direct supervision of J. H. DuPre, who is considered an expert in his line, while Ralph Powell, a member of the Powell Knitting company, of Philadelphia, which recently purchased the plant and will operate it, will be manager.

A total of 150 men and women will be employed regularly in the operation of the mill, which has been considerably enlarged and improved since its purchase from the Textile Industrial Institute, by which it was formerly operated.

In connection with the improvement and enlargement of the plant, 25 model homes for employes have just been completed on the plant site and families are expected to begin moving into them during the next two weeks.

Operations of the plant was expected not later than January 1, but some delay has been experienced in the shipment and delivery of machinery. However, installation is expected to have been complete within the two weeks scheduled.

Operation of the plant with a complete force of 150 employes is not expected in the beginning, but more will be added gradually until full employment has been reached, it is announced.

### Seek Foreclosure of Cotton Mill Chain

**Greensboro, N. C.**—The Coal and Iron National bank, of New York, as trustee, Monday started action in the office of the clerk of Western North Carolina Federal district court involving \$600,000. It is a bill in equity filed against the Mecklenburg Mills Company, bankrupt, E. F. McGowan, of Charlotte, trustee.

The action is brought at the instance of the bondholders, who seek foreclosure and sale of the properties of the Mecklenburg Mills Company, which operated a chain of four cotton mills in North Carolina until the company went to the wall in June, 1923. Since then the mills have been in charge of the trustee in bankruptcy, Mr. McGowan.

Ordinarily a bill in equity is a typewritten document. It may be lengthy, perhaps 30 or 40 pages, full of legal phrases and the like, but this bill in equity is different, as a document. It is thick, printed book, larger than a college catalogue, of 130 pages, averaging about 210 words to the page, a total of about 27,000 words. Where signatures were necessary, they were written with ink.

The bill is filed in the court here because of diversity of citizenship of the parties to it. The bonds were purchased by a New York concern, on April 1, 1922, there being a \$600,000 issue. The mills company gave

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COMMISSION MERCHANTS

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Largest Landscape Organization in the South



a deed of trust over its properties to secure them. These properties were the Mecklenburg Cotton Mills, at Charlotte; Newton and Clyde Cotton Mills, at Newton, and Nancy Cotton Mills, at Tuckertown, Montgomery county. The deed of trust and an indenture are part of the bill, as exhibits A and B. Headquarters of the mills company was at Salisbury.

It is asserted in the bill that the mill company has defaulted in payment of interest on the bonds and part of the principal and that is now payable \$515,000 with interest from the date of purchase of the bonds. The plaintiff asks for foreclosure and sale of the properties; for an injunction against the sale of the property of the mills company by agents other than those to be designated in the foreclosure and sale proceedings, and asks for an accounting concerning the bonds.

In effect, what is asked by the foreclosure and sale is the winding up of the affairs of the company.

J. D. Norwood, of Salisbury, was president of the Mecklenburg Mills Company. He is now under sentence of three years in the federal penitentiary in Atlanta, after conviction here in December on charge of violation of the federal banking laws, in connection with the failure of the People's National bank, of Salisbury, in June, 1923. He appealed to the United States circuit court of appeals. The court has not yet passed on that appeal.

### Power Curtailment Ended

The Southern Power Company has notified its hundreds of customers in the Carolinas, textile mills and other industries using hydro-electric power that "Effective Monday, January 11, our request for curtailment is withdrawn."

The curtailment in the use of electric power has been on a basis of only one day each week for the last month or two. The curtailment was first made effective August 26 and reached its peak on a basis of two and a half days each week in the fall, made necessary, it was explained by the unprecedented drought in Western North Carolina last year.

Officials of the company explained that recent precipitation is believed to have been sufficient together with the operation of the other curtailment unnecessary, pro-company's steam plants to make furnished frequent rains continue, but that without further frequent precipitation renewed curtailment might later be found necessary.

### Wanted

A man to teach band and work in mill. Good pay. Address "Director," care Southern Textile Bulletin.

### Joseph L. Davidson Co.

Established 1889

Designing Card Stamping Repeating  
FOR ALL TEXTILE FABRICS

2525 N. Second St., Philadelphia, Pa.

### Knoxville Mills Busy

Knoxville, Tenn.—Textile mills in Knoxville and this part of the State had a good year and are pleased with the outlook for 1926. Night shifts have been necessary in a number of instances to meet demands.

The Knox Knit and Standard Knitting Mills here have enlarged their plants recently. An addition is being built to the American Woolen Mill plant at Sweetwater. A full-fashioned hosiery mill for the Magnet Knitting Mills at Clinton is nearing completion. The Tellico Plains new mill began operations recently and a night shift was necessary. The new Borden Mills, Inc., at Kingport, have done a big business, and announced additional houses for employees will be constructed.

Outstanding in the textile development is the construction of the large rayon plant in Happy Valley, between Elizabethton and Johnson City,

the foundation work for the first unit of which is almost finished, and steel work will start soon. The first unit is expected to be completed by July. The plant is being built by the American-Bemberg Co., capitalized \$17,500,000. The coming of the big plant to this section has given a decided impetus to business generally and in the vicinity of the industry there has been real estate activity.

An additional brick building for the Harriman Hosiery Mills, 60 by 144 feet, two stories high, is being completed. The first floor will be used to relieve congestions in the storage department, while the second floor will be used to install new machines. A part-time school is being fostered and partially maintained by the support of the Harriman Mills.

More textile plants are in prospect for East Tennessee, definite announcement of them probably to be made soon.

## DRUIDOAK LOOM LEATHERS

Highest Grade Oak Tanned  
For Cotton, Wool and Silk Looms

Check Straps,  
Dobby Straps,  
Lugs, etc.

Hold-ups,  
Bumpers,  
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The Druid Oak Belting Co., Inc.

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### EMMONS LOOM HARNESS COMPANY

The Largest Manufacturers of Loom Harness and Reeds in America

Loom Harness and Reeds

Slasher and Striking Combs, Warps and Leice Reeds,

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## Reliable Humidifying Devices

Since 1888  
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Better Textile Dryers

Manufactured by GRINNELL COMPANY, Inc.

## AMERICAN MOISTENING COMPANY

Atlanta  
Georgia

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Massachusetts

Charlotte  
North Carolina

### Announcement of Consolidation

The Carrier Engineering Corporation which has long specialized in the field of air conditioning engineering has recently acquired all of the capital stock of the Atmospheric Conditioning Corporation of Philadelphia, Pa.

The entire air conditioning business of the latter company will be continued by the Carrier organization, while the air washer business which the Atmospheric Conditioning Corporation formerly conducted has been recently purchased by Strandwitch & Scott, Inc., who will continue to manufacture and install Webster air washers with the Webster dewpoint control.

John F. Hale, president of the Atmospheric Conditioning Corporation, has accepted a position as representative and engineer for the Zerofin Corporation with headquarters in Chicago.

H. A. Terrell, treasurer of the Atmospheric Conditioning Corporation, will have charge of a construction force for the consolidated Carrier Engineering Corporation and the Atmospheric Conditioning Corporation, and will be located at Newark, N. J.

E. Nesdahl, former chief engineer of the Atmospheric Conditioning Corporation will be connected with the Chicago office of the two corporations.

S. C. Bloom, the engineer in the Chicago office of the Atmospheric Conditioning Corporation will devote his energies to the packing house industry and will remain in Chicago.

### Open Charlotte Office.

The National Oil Products Company, and the Metasap Chemical Company, have opened an office in Charlotte, having quarters at 204 Johnston Building. The office is in charge of C. I. Post, Southern representative.

The company has a large and growing business with Southern mills, their products being well and favorably known in the trade. The Charlotte office was opened to better serve this territory and will enable the company to render more effective service in the distribution of its products.



### Representatives Wanted

Rayon—Old established concern open for high class representatives in the principal consuming centers to distribute superior grade Rayon. Must be well acquainted in trade and not carry conflicting line. Give detailed information regarding qualifications. Address Box 697, Charlotte, N. C.



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SOUTHERN REPRESENTATIVE  
FRANK L. PAGE  
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COPPING AND CONING ON COMMISSIONSINGLE END  
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## Direct Dyes for Cotton

Under the above caption, the National Aniline and Chemical Co., has just published a book illustrating the shades obtained with the dyes for cotton manufactured by the company and giving a survey of their properties and methods of application. The products listed in the book comprise the most important of their direct and developed dyes, and where applicable, special methods of after-treatment have been included.

Ninety-eight dyed samples are shown in the book, together with instructions for the application of the colors. The table of contents list the following subjects upon which practical information is supplied: Dyeing with Direct Dyes; After-treatment with Formaldehyde; After-treatment with Copper Sulfate; After-treatment with Bichromate and Copper Sulfate; Diazolizing and developing Direct Dyes on the Fiber; Fastness Tests; Dyes of best Fastness to Washing; Dyes of best Fastness to Light; Dyes of best Fastness to Acids; Dyes with best Fastness to Alkalis; Dyes with best Fastness to

Hot Pressing; Dyes suitable for Discharging with Hydrosulfite; Dyes Suitable for Dyeing in a Cool or Lukewarm Bath; Dyes suitable for Combination Shades and Subsequent Shading; Dyes Suitable for Machine Dyeing; Dyes which leave Cellulose Acetate (Lustron and Celanese) Effects Clear.

The book is a handy guide for acid color dyeing and will prove exceedingly valuable to any dyer concerned with this work. Copies may be had upon application to the National Aniline and Chemical Co., New York.

## Cotton and Textiles See the Light

The Government estimate of December 8 of 15,603,000 bales of cotton indicates the third largest crop on record, but the accuracy of this estimate cannot be determined until the final ginning report of January 16. The Government's estimate includes much cotton that has not yet been picked because of prolonged spells of wet weather and lack of labor. Whether this cotton will ulti-

mately be picked depends upon the extent to which it has been damaged. The Government's estimate of very large production caused an immediate fall in the price of cotton, exercising an unfavorable effect upon trade, for the time being, in the Cotton Belt.

Cotton is being largely held for higher prices. The planters and farmers are in better shape to hold cotton than for many years past. They have generally paid off their old debts. This holding of cotton has put a chill on trade for the time being, and buying will be more cautious until the final prices of cotton are determined more definitely after the first of the year. Then the crop will be marketed with greater freedom.

An encouraging fact is that there was a 25 per cent increase in exports of raw cotton and of cotton manufactures in October over the same month of last year, while domestic consumption is running 7 per cent ahead of 1924.

Observers report that the New England mills are on a more solid foundation than for many months past. The wage scale was easily

reduced. This, combined with lower costs of raw material, makes it possible to put out cotton fabrics at prices that find favor with consumers.

The drought that greatly reduced the hydro-electric power of the Southern mill has been relieved by copious rains, and the mills are now running on regular schedule.—Business Bulletin of La Salle Extension University.

## Mills Get Tax Refunds.

In the list of tax refunds, during 1925, as submitted to the House Ways and Means Committee of Congress, are the following:

Henrietta Mills, Inc., Caroleen, N. C., \$117,208; Latham Bradshaw Cotton Company, Greensboro, N. C., \$26,156; Monarch Cotton Mills, Gastonia, N. C., \$9,320.10; Woodruff Cotton Mills, Greenville, S. C., \$10,542; Delgado Mills, Wilmington, N. C., \$11,603; Pell City Manufacturing Company, Birmingham, Ala., \$36,254; Newberry Cotton Mills, of Newberry, S. C., \$111,528.

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GEORGIA WEBBING &amp; TAPE CO.

SERVICEABLE

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Manufacturers of

BOBBINS SPOOLS SHUTTLES

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BOBBINS  
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## AUTOMATIC SHUTTLES

Our Automatic Shuttles are giving Perfect Satisfaction in Leading Mills throughout the country on all classes of work



**Cotton Mill Processes and Calculations**

(Continued from Page 21)

**SLASHER—PROCESS.**

215. Having predetermined the number of ends of warp to put on loom beams to produce the required cloth (as explained in the chapter on organization), and having made up the warper beams to correspond, say 5 with 408 ends each, these 5 beams are placed in the creel.

The beams are adjusted endwise with the hand screws until the heads are all in line.

The sheet of warp is unwound by hand from the rear beam and carried over the next beam, where it is united with the sheet of warp from that, and so on with the other beams.

The whole sheet is drawn through the starch box. The top rolls E are lifted off squeeze rolls and put in the rests at the side of the bearings.

The sheet is divided into about 4 parts. A small rope is

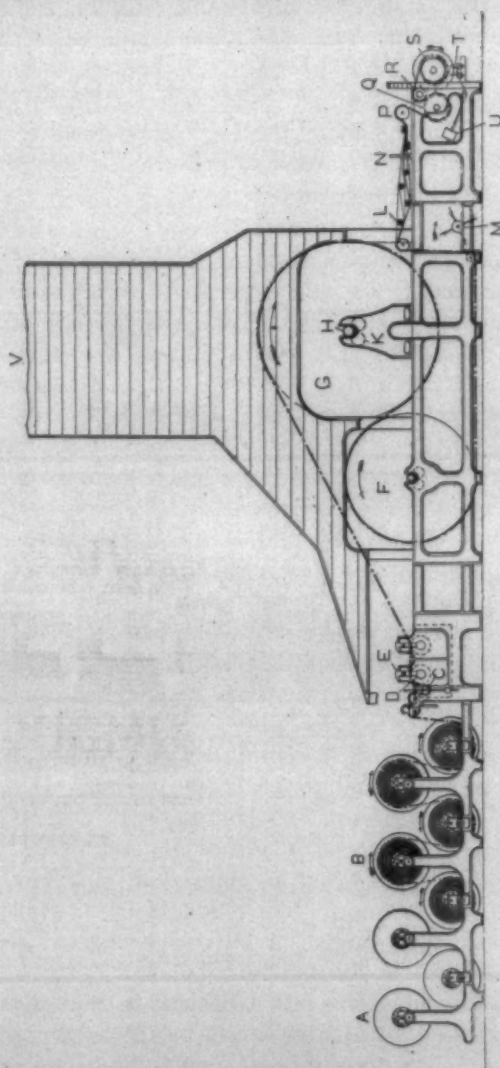


Fig. 46. Slasher (Section).

tyed to each division. The ropes are threaded around the cylinders as shown and pulled by hand until the sheet of yarn is entirely through to L.

Ropes are untied, and the yarn is divided over the lease rods and threaded as shown, and fastened to loom beam.

In order to effect a division of the warp at the lease rods, "thread leases" are put in as the warp is unwound from the beams in the creel. This thread lease consists of a small doubled cord. A thin stick is put between the doubled over ends of the cord, and pushed through between the sheets of yarn as they unwind from the beams. The stick is withdrawn. The cords remain, and pass over the cylinder with the yarn.

**MORE**  
**SOUTHERN SPINNERS**  
 are using  
**"AMTEX"**  
**Spinning, Twisting and**  
**Spooler Tapes**  
 Than ever before

This increasing demand indicates the superiority of AMTEX Tapes over all others.

We are pleased to build special Tapes for your particular needs.

Send us your specifications and we will guarantee satisfaction.

*Manufactured by*

**AMERICAN**  
**TEXTILE BANDING CO., INC.**

GERMANTOWN, PHILADELPHIA, PA.

*Sold in the South by*

**Charlotte Supply Co., Charlotte, N. C.**

*There are Three Things*  
*That We Offer to Careful Buyers*  
*of Trees and Plants*

**(1) Nursery Stock**

Splendid, healthy, home-grown, specimens of trees and shrubs especially adapted to local and nearby gardens and home grounds.

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We are so confident of the superior quality of our Nursery Stock that we undertake to replace, f. o. b. nursery, any tree or plant which dies within one year after we have planted it.

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A skilled personnel competent to devise the most effective and economical planting plans, and to see them through even to the actual planting.

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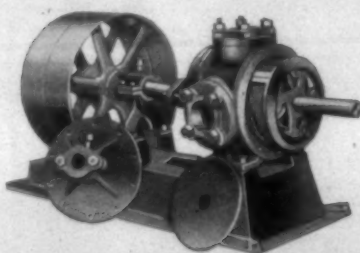
A thin boiling starch made especially for the textile trade. Produced in the most modern and perfectly controlled plant in existence. The result of over 20 years study and experience in the production of textile starch and its uses. Combines quality, uniformity and economy. We manufacture Pearl, Powdered and other standard grade starches of the highest quality.

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# STARCH



No. 4  
Blackmer  
Rotary  
Pump, with  
acid-resistant  
lining.

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## BLACKMER ROTARY PUMP

For Your Size Room Needs

No matter what your size room pumping needs may be, there is a Blackmer Rotary Pump which will lend itself readily to these needs.

Whether your particular installation requires a solid pump, a pump with acid-resistant lining, or a unit of two or more pumps mounted with power plant, you will find a Blackmer which will give you economical, long-time size pumping service.

These Blackmer Features are proving invaluable in many textile plants:

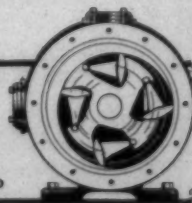
- 1st. A Blackmer automatically takes up its wear as it occurs.
- 2nd. Replaceable cylinder linings of acid-resistant bronze.
- 3rd. Monel Metal shaft, also resistant to acid.
- 4th. Practically leak-proof. There are no valves in a Blackmer.
- 5th. Cylinders cast from either iron or bronze.
- 6th. Equipped with tight or loose pulleys or individual power plant.

The No. 4 Blackmer Pump with replaceable lining, illustrated above, is particularly well suited to size pumping. This pump handles 50 GPM at 430 RPM.

GET IN TOUCH WITH OUR NEAREST BRANCH.  
OUR ENGINEERS WILL GLADLY CONSULT WITH  
YOU ON YOUR PUMPING PROBLEMS.

**BLACKMER PUMP Co.**  
Grand Rapids, (Formerly at Petoskey) Michigan

Chicago New York Buffalo Philadelphia Louisville New Orleans  
Detroit Baltimore Atlanta Minneapolis Pittsburgh Kansas City  
Boston Milwaukee Houston St. Louis San Francisco



When the first one reaches the first lease rod, this rod, having a flattened end, is pushed between the doubled cord, entirely across the sheet. The cord is then withdrawn. The other lease rods are inserted in the same manner. The yarn is thus divided up into as many parts at the front of the machine as there are beams in the creel.

This division or leasing is made with every new set of warp beams.

From the lease rods, the yarn passes through the front comb (or "heck," "reed," "wraith") where the ends are still further separated.

216. The front comb is expansible, in the same way as on the warper. It is adjusted to about the width of the sheet of warp. This comb has usually 300 to 500 teeth or "dents." The total number of warp ends is divided as equally as possible in this comb. If there are 2040 warp ends and 300 dents in comb, the division would not be even, if all the dents are used, because if 7 ends were put in one dent, it would require 2100 ends to fill the comb. We might use only 291 dents, putting 7 warp ends in each. This would use 2037 ends. The other 3 could be accommodated by going in another dent to themselves, thus using 292 in all. The division might be made in other ways. The object of the lease rods and the comb is to separate the threads as much as possible, so they may lie flat and consecutive on the loom beam.

When yarn has been properly placed in comb, the top rolls E are put in place as shown, and the immersion roll C run down into the size box, by a crank mechanism for the purpose.

217. The size box is filled from a kettle which stands on an elevated platform. The kettle is made of cast iron and has a revolving stirrer, and is provided with a steam pipe around inside of bottom. This pipe is perforated.

When steam is turned on, it comes out of the perforations and heats the contents of kettle, while the stirrer mixes them.

Fig. 47 shows a late improvement in starch kettles. There are stationary blades, as well as revolving stirrers. These make the mixing more thorough than in the old style machines, which have only the revolving stirrers.

Revolving stirrers are mounted on an upright shaft, and geared 2 to 1 to a horizontal shaft carrying tight and loose pulleys 10 x 2. The driving shaft should run about 100, and stirrer shaft 50.

The kettle in Fig. 47 is round, 3 feet 6 inches in diameter, 3 feet 6 inches high and weighs 1400 pounds. It holds about 200 gallons, and will cook 160 gallons.

218. The size is made of starch and tempered with some kind of a "softener," which is composed of tallow or similar grease, and an antiseptic like chloride of magnesia. These softeners may be brought in barrels prepared, ready to be mixed with starch in size kettle.

Recipes for mixing size will be found in the appendix.

When size is cooked and stirred sufficiently (the proper time—about 15 to 40 minutes—can only be determined by experience). It is drawn through a 2½ inch or 3 inch pipe to the size box of slasher. This is a wooden box lined with copper and provided with perforated steam pipes for keeping size warm. It holds about 80 gallons. This amount will size 700 to 800 pounds of yarn.

Steam inside the copper cylinders dries yarn as it passes around.

These cylinders are 60 inches wide. The large one is 7 feet diameter, the small one 5 feet. Steam is admitted through hollow shaft of cylinder. It first passes through a reducing valve, which is adjustable so that boiler pressure may be reduced to 5 to 15 pounds, or when desired entirely shut off.



The reducing valve is connected to the belt shifter in such a way that when machine is stopped, steam is entirely shut off.

The opposite side of cylinder from steam inlet serves as an outlet for condensed steam. Inside the copper cylinder, close to the shell are cups, extending across entire cylinder. These cups are so set that they lift the condensed water and deliver it through a pipe out of hollow shaft of cylinder. It is important to have cylinders put in the frames correctly when machine is first set up, so that they may run in the right direction for cups to lift the water. The makers commonly put arrows on the outside of cylinder to indicate the proper direction of revolution. The pipes leading condensed steam from the hollow shafts lead to steam traps which are for the purpose of allowing only the water to escape, and thus prevent waste of steam.

Cylinders have steam valves in the heads, which may be easily opened to allow steam to escape in case the machine has to be stopped. This cools the cylinders, and to some extent, prevents browning the yarn.

It is important to occasionally try the pet cocks in end of cylinders to see that trap is properly working and that the steam inside cylinders is dry. There is a gauge to indicate pressure of steam in cylinders, but it is possible for the gauge to indicate pressure while cylinders are cold, because of the

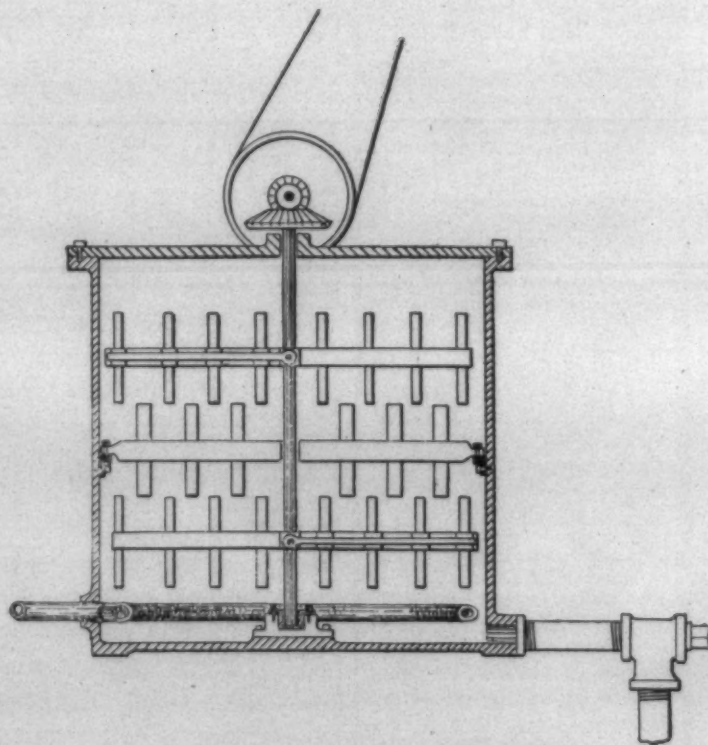


Fig. 47. Improved Starch Kettle.

presence in them of condensed water. Steam must be kept dry in order to properly dry the yarn.

The fan M dries the yarn.

The large wooden hood (which is built over the machine after it is set up) carries away the steam arising from the yarn drying on the hot cylinders. Whenever possible this hood should lead through the roof. If slasher is not in a room next to roof a large wooden flue from hood may be run out the side of building and turned up a few feet. The flue leading from slasher should incline toward the outside of building, so the condensed steam will run out of the building. Sometimes, when a number of slashers are run in the same room, an exhaust fan is attached to the hoods, to draw out the steam. This is a good arrangement in any event.

(Continued next Week)

ESTABLISHED 1815

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1923

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Town \_\_\_\_\_

Spinning Spindles \_\_\_\_\_ Looms \_\_\_\_\_

Superintendent \_\_\_\_\_

Carder \_\_\_\_\_

Spinner \_\_\_\_\_

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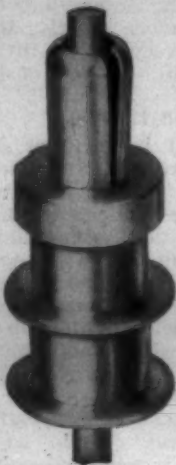


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### International Textile Situation in 1925

(Continued from Page 14)

#### New Textile Developments.

Great interest is shown and some progress is being made in the establishment of linen mills in this country. The northwest section of the Pacific coast seems to be the center of this movement.

Interest continues in the development of textile mills in the Southwest and on the Pacific coast.

#### The Industry Abroad.

France, Italy and a few Central European countries have had a profitable year in the various branches of their textile industries.

The German textile industries are not in as good a position as it was expected they would be, although some improvement is noted.

While somewhat improved, the situation in Great Britain is far from satisfactory.

Some increase in the production of cotton in territory under Russian control has been noted, while at the same time Russia has been augmenting its output of cotton cloth and also buying larger quantities of textile goods from outside.

Conditions have been far from satisfactory in the Polish textile industry, which has been hampered by financial considerations and difficulties in marketing its goods at a profit.

#### Prospects for 1926 Generally Favorable.

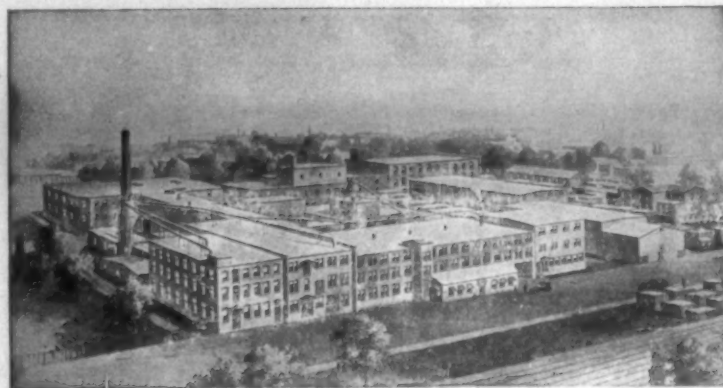
It would appear from the foregoing brief resume of some of the noteworthy developments during the past year that the whole textile group is in a fairly healthy position so far as this country is concerned. True, there are some gaps and deficiencies which in one form or another may be regarded as perennially with us. On the whole, however, there is little to complain about, especially since the prospects for 1926 are much more favorable than they were for last year. This situation may be attributed not alone to seasonal or sporadic demand, but also to the trade's increasing interest in styling, merchandising, and the elimination of waste.

Notwithstanding a gain of about 50 per cent in United States consumption of rayon, the use and consumption of real silk also increased tremendously. Furthermore, it is strongly believed that this newest member of the textile group, rayon, which is being used in increasing quantities in combination with cotton yarns, has contributed to the improvement in the cotton goods trade.

The American textile industry enters the new year encouraged, with a better conception of proper merchandising, mill management, waste elimination, international relationships, and other important factors of successful commerce. With fairly adequate supplies of cotton, silk, wool, rayon, and most other raw fibers at a reasonable stability in price, there should be every justification for expecting a further improvement in the textile industry throughout the world.

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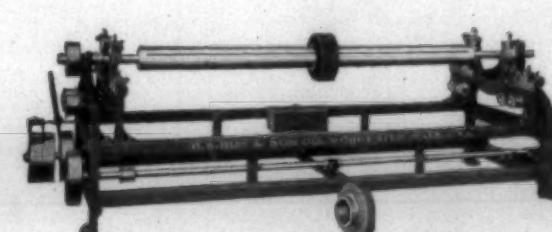
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### Methods of Handling Rayon

(Continued from Page 8)

(2) 11 gallons water, 5 pounds gelatose, 3 ounces glycerine.

Boil mixture until scum disappears, which will require about 15 or 20 minutes.

To preserve this preparation add 4 ounces of benzoate of soda to 10 gallons of solution.

This preparation can be used could during the process of sizing.

#### Formula for Skein Sizing.

60 pounds gelatine, 198 gallons of water.

Soften the gelatine by allowing it to stand for a few hours, then boil for from 15 to 20 minutes; allowing the bath to cool until it is lukewarm before entering the silk. Dip the yarn in the bath, then hydro-extract for from 15 to 20 minutes. The yarn is then ready for the drying machine, but should be shaken out before drying, to prevent the threads from sticking together.

This formula is preferably used for yarn having additional twist; that is four turns extra to the inch.

Sizing formula No. 2 can also be used successfully for skein sizing by omitting the glycerine.

#### Weaving.

The weaving of artificial silk warpers needs rather more care and adjustment than that of either natural silk or cotton warps. The warp must be placed on the beam hard and level, and must be of the same width as the reed-space of the warp. The heddles should be of either round or flat wire. They should not be crowded on the harness-frame, as this would result in chaffing and splitting of the yarn; thus producing streaks in the woven cloth. There should not be more than 30 heddles per inch of 30 to 32 gauge wire placed on a frame. Care should be taken that the heddles are as smooth as possible, and without shoulders; any projection interferes with shedding and causes breakage in the material, hence floats, felters and other imperfections.

In weaving warps of 75 denier, 100 denier and 150 denier artificial silk, the gauge wire suitable for these sizes of yarn would be:

Wire gauge No.	Wire gauge No.
75 denier.. 30	150 denier.. 32
100 denier.. 30	

Attention must be given to the reed; the ordinary strong wire is unsuitable, and is very detrimental to the weaving, owing to friction on the material. The reed most suitable is the flexible reed, made of fine wire with rounded ends. This prevents strain and jaggings of the filaments and helps the material to weave better. All reeds should be at least 3½ inches deep from balk to balk, and should be set sufficiently deep in race-plate on loom to allow yarn to pass through the most flexible part of the reed. This allows knots to pass through and prevents threads becoming stretched, which, if not prevented, would result in shiny streaks in the woven fabric.

The shuttle race requires special attention as it must be perfectly smooth, or better still, covered with felt or swandown to form a cushion for the obtom shed. This en-

ables the shuttle to pass freely over the threads without bruising, splitting or weakening them, and also helps to keep the shuttle down.

It is more practical in artificial silk weaving to move the warp support closer to the loom to maintain the shed short in order that the warp may work more quietly; that is, to prevent a very strong lifting up or down, as in the case of the long shed.

#### Loom Speed 140 Picks.

The loom-speed for artificial silk should be approximately 140 picks per minute. The majority of manufacturers who use artificial silk find that more skill is required to manipulate the weft than the warp. Artificial silk, being a dry and springy material, is very lively and ballons when weaving. It leaves the cop or quill in ring or curl form and, therefore, it is necessary to straighten out the shoot before it is beaten up to the neighboring pick. If so straightened out, the result would be a slack pick, which is as objectionable a defect as bright or tight one. Slack, bright, or tight picks are the greatest evils in artificial silk weaving.

To prevent these faults, it is essential that the drag on the weft be regulated with as soft and tough a material as can be obtained. Rabbit skin or wool felt should be placed inside a shuttle having only one eye. The shuttle eye passageway should also be padded, using a soft worsted material. This, in conjunction with the lining of the best means of putting on drag, because it can be regulated to whatever, tension is required.

Other precautions to be observed to prevent these faults are: The pick must not be too strong; the shuttle must be properly checked and on no account allowed to rebound; the shuttle-guide must be covered with swandown on the face-side within the shuttle-box, to prevent the cutting or the thread; the cop or quills should be well corrugated, and should be coarse-wound, to prevent any easy slipping-off. The yarn wound this way is less wavy than in the case of parallel quilling. Wavy filling will produce crinkled merchandise.

#### Cutting Off Filling.

Cutting of the filling is another defect requiring attention, particularly in broad work, and when the warps take up all the reed space. FOUR—Methods of Handling Rayon Often the cause of his trouble is uneven sides, and tight selvages, on account of the warp's being narrower on the beam than the width in reed space. In weaving colors it is preferable to use two shuttles instead of one; that is, two picks from each shuttle. This will reduce to a minimum skein marks and shaded streaks which appear at times in skein dyed yarn. It is important, when looms are stopped over-night and week-ends, that the weaver should tighten the warp up before starting, as this will prevent crinkly effects or slack yarn in the cloth.

In weaving fabrics that contain a small number of ends, that is, stripes of artificial silk, care should be taken to weave them as slack as possible, as artificial silk contracts in the finishing, thus causing burly or wavy effects if woven with too much tension. It is preferable to use



skein-sized yarn for stripe effects, as this yarn does not contract as much as machine sized yarn in the finishing process.

Weaving plants should be operated under a dry atmosphere, similar to that described above with reference to the winding and quilling operations.

### Some Mills Are Worst Type of Speculators

Discussing speculative tendencies in cotton, and the manner in which they hinder mills, David Crutchfield, Charlotte representative of R. H. Hooper & Co. says:

"There are spinners who are the very worst type of speculators, in that they buy and fix the price for large quantities of cotton, and convert this raw cotton into goods without having previously found a market for their manufactures. Neither the cotton bought, nor the goods held is hedged or insured against by the sale of contracts in the future market. They have been known to stand by and let the market decline 5 or 6 cents a pound, and still never place a hedge against a pound of cotton or goods.

"Of course, this is the grossest negligence, the most flagrant and inexcusable speculation. Other spinners buy their cotton to meet immediate requirements, thus keeping even with the market as nearly as possible, and have need of the future market. Still others, some of whom are the larger and more progressive concerns and as well, the most properous, never permit a pound of cotton or manufactured goods to remain unhedged or unprotected, which is excellent business."

Mr. Crutchfield discusses the complaint of mills regarding the recent December position, saying that the only remedy is to ship large quantities of cotton for delivery on the month manipulated, so as to make it unprofitable for any interest to at-

tempt a repetition of the transaction.

"American spinners are prone to condemn dominant speculative interests for buying large quantities of contracts in nearby months and selling similar amounts in distant options in the future markets, thus causing the month in which the long interest is concentrated to sell at several dollars a bale premium over all other months.

"They claim this works greatly to their detriment in buying and fixing the price of their cotton purchases, that it generally puts markets in an unhealthy and unnatural position, disorganizes trade and is hurtful in the extreme; that natural markets are always where the following months sells at a large enough premium over the preceding month to cover carrying charges, and that such markets as these are always best and preferable for legitimate trade and spinning interest; that there should develop some plan whereby all element of speculation detrimental to or interfering with the regular marketing of cotton and goods, to rid them of this character of manipulation.

"While it is admitted that these charges of spinners are well founded and based on fact, that such tactics by speculators have been openly practiced for several years, there evidently is only one course known to prevent these manipulated moves, that is, by shipping large quantities of cotton for delivery on the month manipulated, so as to make it unprofitable for any interest to attempt a repetition of the transaction."

### Mutual Mill.

Gastonia, N. C.

6,000 spinning spindles.

D. E. Elmore	Supt.
J. M. Elmore	Carder
A. H. Russell	Spinner
R. W. Miller	Master Mechanic

### Most Southern Mills Pay Usual Dividends

(Continued from Page 12)

Oakland Cotton Mills	3½%	500,000 Pref.
Orr Cotton Mills	4%	800,000 Com.
Orr Cotton Mills	3½%	800,000 Pref.
Pacolet Mfg. Co.	5%	2,000,000 Com.
Pacolet Mfg. Co.	3½%	2,000,000 Pref.
Pickens Mills	2% (Q)	750,000 Com.
Pelham Mills	4%	200,000 Pref.
Piedmont Mfg. Co.	4%	1,600,000 Com.
F. W. Poe Mfg. Co.	1½% (Q)	2,000,000 Com.
Poinsett Mills	3%	474,000 Com.
Riverside and Dan River	3½% (Q)	7,500,000 Com.
Riverside and Dan River	3%	7,500,000 Pref.
Riverside Mfg. Co.	3%	1,000,000 Com.
Spartan Mills	4%	2,000,000 Com.
Saxon Mills	3%	900,000 Com.
Toxaway Mills	2% (Q)	500,000 Com.
Victor-Monaghan Co.	1½% (Q)	1,011,000 Pref.
Thomaston Cotton Mills	2%	1,200,000 Com.
Thomaston Cotton Mills	4%	2,400,000 Pref.
Ware Shoals Mfg. Co.	2% (Q)	1,000,000 Com.
Wallace Mfg. Co.	1½% (Q)	220,000 Pref.
West Point Mfg. Co.	2% (Q)	7,200,000 Com.
Williamston Mills	2½% (Q)	600,000 Com.
Winnboro Cotton Mills	2% (Q) plus 6% spec.	2,000,000 Com.
Winnboro Cotton Mills	1½%	2,000,000 Pref.
Wiscasset Mills	5%	3,600,000 Com.
Woodruff Cotton Mills	5%	787,800 Com.
Woodside Cotton Mills	4%	1,763,760 Com.
Woodside Cotton Mills	3½%	2,263,760 Pref.

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Cash refunds to policyholders, amounting to nearly \$13,000,000 since organization, have realized savings to them of at least 20% of the standard stock company insurance cost.

### Proper Handling Of Shuttles

(Continued from Page 14)

the bottom of the shuttle and tapered off so as to give an efficient brake to the weft.

The lug on the head of the spindle is no worse for being slightly rounded off, so that there is no danger of the weft catching.

When a pair of shuttles is to be placed on a tappet or plain dobby loom, certain things require attention.

#### Necessary Adjustments.

The shuttle guide at the box back top has first to be elevated, for it has been fixed lower to suit the worn conditions of the old pair of shuttles. The box front has also to be brought further back to provide room for the larger dimensions of the new shuttles.

The outer end of the box front is set so that the shuttle is easy in the box, an allowance of, say, 3-16th of an inch being made. The inner end of the box front is set wider owing to the slope of the picker spindle. The shuttle front must fit well with the inner side of the box front, for if they fail to fit well together, the weft often drops out of the grooves in the shuttle front and box side, and is cut in two as the picker pushes the shuttle out of the box.

The shuttle front in its relation to the box front can be in any one of three positions. It may be leaning backwards at the top, and have to be forced over by the pressure of the box swell. In this case, the two feet of the box front would need packing with tapered cardboard, the thickness necessary being to make the inner box front fit exactly to the shuttle front, the packing being inserted at the front of the feet.

The shuttle may lean forward at the top and be off at the bottom, and the tapered cardboard would have to be inserted from the back to make the box front lean forward.

The shuttle may fit exactly to the box side without any packing being necessary, this being the best possible relation to each other.

#### The Shuttle Front.

So long as the two feet of the box fit well with each other when no packing is inserted, it is a useless piece of labor to grind or file the feet of the box to suit a particular pair of shuttles. An it is useless for this reason: One batch of shuttles may be all of the same bevel, and no packing of the feet may be needed, but the next lot ordered may not be the same bevel, though ordered from the same maker as the first batch.

And, further, the third lot may not be in accordance with either of the others, and so far each lot the box fronts would have to be set at a different angle each time to get the best wearing out of the shuttles, with the least detriment to the weft. The strength of the feet is thus retained, and the weft in each case during the life of the three different bevels of the pairs of shuttles is successfully inserted in the fabrics.

If any doubt exists in the mind of

the overlooker as to which way the box front should be packed, the box end may be unloosed, the box swell propped back, and the shuttle pulled steadily into the box by hand, the eyes at the box end watching for the streak of light which is sure to appear either at the top or bottom of the shuttle front if the two friction surfaces do not fit well together.

There is one other difficulty which has sometimes to be mastered in the proper setting of the box front—namely, that some overseers do not take the trouble to make a proper fit, and consequently the inner box side as well as the shuttles are worn a peculiar shape, and defy any method of packing to get the two surfaces to fit well together.

When this is found to be the case, the box has to be taken off and filed at the bench to make the inner side level from end to end, and then finished off smooth with emery paper.

The fitting of the shuttle front with the inner box front should be done when the shuttles are new, and each box made the same. During the life of the pair of shuttles, weft cutting from weft dropping is thus practically eliminated.

In adjusting the bottom shuttle guide it is bolted as near to the shuttle top as possible without generating undue friction at the outer end, and the inner end is fixed a little further up to allow for the upward slope of the picker spindle. —Textile Argus.

### Lancashire Problem Of Diminished Output

(Continued from Page 7)

and compel any remedies that may be necessary.

Of more immediate importance than either of the above questions is the question of the short-time policy. The circumstances under which the policy was adopted in 1924 are well known, and there is no need to explain them at any length. During the post-Armistice boom the average prices of American cotton and yarn increased to more than 300 per cent above their pre-war prices. With the collapse of the boom the average price of yarn came down with a rush, and, although the price of cotton also declined, spinners' margins were reduced to a negative quantity, and by the beginning of 1924 the position of many spinning concerns was parlous. Consequently, the short-time policy was adopted in order to alleviate the situation, and, if possible, by a restriction of supply, secure profitable margins. Evidently the success of such a policy is dependent upon the extent to which those who adopt it have control over supply. That the British cotton industry, owing to its size in relation to the size of the world's cotton industry, has a considerable measure of control is clear, and for this reason the policy has undoubtedly done much to relieve a critical situation.

At the same time any success attained by the policy ought not to obscure its weaknesses. Evidently, within the industry where a short-time policy is adopted its effects are to increase the cost of production per unit of output and to strengthen



en the position of the weaker concerns in relation to the stronger; while outside the industry its effect is to strengthen the relative position of competitors who do not adopt the policy, both by changing the former relation between costs of production and by ensuring to these competitors an ampler supply of raw material at a lower price than would otherwise obtain. At the best a short-time policy is a surely defensive and negative policy, and can be successful only for a short period. If persisted in long enough it must seriously weaken the relative position of the industry in which it is put in operation.

It is because these weaknesses of a short-time policy are present to the minds of some of those engaged in the British cotton industry that they insist that, at the earliest possible moment, there should be a definite move in the direction of full-time working. Consequently, it is not unlikely, with the increased supply of American cotton and the prospect of lower prices, that a change from the present policy will become a matter for serious discussion in the near future. The requisite condition of profitable full-time working can be simply stated: it is that demand prices and supply prices for a full-time output should coincide. Whether this condition is within measurable distance of attainment in the industry is certainly a question which calls for and, no doubt, is receiving the most earnest consideration. Further, it may be taken for granted that in arriving at decisions concerning the continuance of the present policy the following points are given due weight: (a) the present productive capacity of the British cotton industry when working full time; (b) the probable effect of full-time working on costs and prices; (c) the possibility that, under the best conditions that can be expected for a considerable time in the future, demand at profitable prices will be less than can be met by the present full-time productive capacity.

As regards these points it is, of course, evident that, in view of the reduction in the length of the normal working week, the present full-time working capacity is hardly likely to be as great as in pre-war days, and therefore should not require a demand of the pre-war magnitude to call it forth. In the next place, assuming that the effect of full-time working would be an appreciable reduction of costs and prices, it is not unreasonable to anticipate that demand would respond with considerable elasticity, especially when purchasers fully realized that a permanent basis had been established. Considering what is involved in the third point it may be surmized that it is the possibility there suggested which compels caution in departing from the policy of short-time working. But, assuming it were departed from, and it was found that the demand at profitable prices was less than could be met by present full-time working capacity, would the effect be more than to weed out the less efficient concerns and leave the demand to be met by the more efficient.

The last statement suggests a dras-

tic remedy, but, taking a long view it is doubtful whether it would be in the interests of the British cotton industry for the policy of short-time working to be unduly prolonged on account of the effect which the remedy might have upon the position of a small number of weak concerns. The supremely important fact that has to be kept in mind is that this industry, dependent as it is upon outside sources for its raw material and upon outside markets for the disposal of so large a portion for its output, cannot trust its security to the expedients that may be for temporary purposes. In the nature of the case the position of the industry can only be maintained and improved upon as it has been built up, by the method of efficiency. If this fact were lost sight of the comparative position of the industry would be seriously jeopardized. Fortunately, there is no immediate danger of such a situation, and no one acquainted with the type of men engaged in the British cotton industry can have the smallest fear that it will be allowed to develop.

#### Warns of Over-production of Rayon Goods

Roanoke Rapids, N. C.—S. F. Patterson, president of the North Carolina Cotton Manufacturers' Association and treasurer and manager of the Roanoke Mills Company, one of the largest manufacturing plants of North Carolina, sounds a note of warning on the danger of overdoing in production. He says:

"Novelties and especially those in which rayon has been used to a more or less extent, have encroached on the gingham market. But I expect to see gingham worn again in large quantities before a great while.

"I would regret to see all the mills in this section stop making staples and go to novelties, because if they did this the market on novelties would be just as bad as it is on the staple lines.

"The mills should have some kind of an organization of diversification, that is, all of the mills should not go on the novelties, but the organization should try to get certain mills another line, and it should see that too many mills do not get on any one line. I would like to see some organization of this kind in existence where the mills could map out some such policy for their own protection.

"We are selling quite a lot of rayon novelties and we believe they will be good, provided the mills make them up to standard and make good styles. If they begin to cheapen rayon, that is, make inferior quality and all one style, why the mill will find themselves in worse shape than they did in the gingham proposition, I believe. If they will keep rayon up to standard, watch the styles and make the latest things, they will succeed and make money.

"I think this will be a good year, do not look for anything big, no boom, but do look for a good, steady business right along. We will all have to get right down to work and push things along, and if all will do this 1926 will be a good year."

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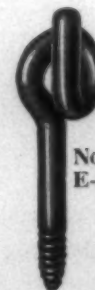
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Print Cloths, Twills, Pajama Checks,  
Sheetings, Combed Peeler Yarns

## Cotton Goods

New York.—Trading in the cotton goods markets last week was moderately active and the total business done was very promising. Prices held steady throughout, with print cloths slightly higher. The demand was largely for goods for spot and prompt delivery. There were some sales of sheetings to the bag trade. New prices in denims showed a reduction of  $1\frac{1}{2}$  cents and sales were made for delivery into the first quarter of the year, this business running into fair quantities.

Colored goods were fairly active. Domets sold fairly well for future delivery. Bleached goods held steady and sales of wide bleached sheetings have been large enough to put the mills well under order for some weeks to come. Wash goods for spring were only moderately active, gingham and similar goods being less active than printed wash goods.

There was a good business in printed voiles and fine combed yarn specialties in printed effects. Sales of rayon mixtures were rather large. The immediate demand is for repeat export business on goods around 35 cents a yard and higher. Recent sales of rayon mixed gingham have been very satisfactory.

The total business in print cloths for the week was large. Wherever buyers were willing to meet the prices at which goods bought, good sales resulted. There was a steady flow of moderate sized orders rather than any particularly large business for future delivery. With few exceptions sheetings were rather quiet. Prices held steady and very few sales were reported at concessions.

While the actual amount of business in broadcloths and warp sateens was not large during the week, there was a very active inquiry for goods for delivery in May and June. These inquiries covered mainly the 128x68 all combed styles. There was a fair call for prompt delivery in both the combed and carded constructions.

Trading in tire fabric was quiet. Mills are well sold at present. One tire factor has pointed out that the entire trade is awaiting the effect of the introduction of balloon tires. These tires have already had a good effect in increasing the consumption of fabric and are counted on to further increase consumption if they prove entirely satisfactory with the public.

The demand for duck was almost entirely confined to numbered duck, which sold well throughout the week, prices being 45 and 5 off the lost for well-known lines. Hose and belting duck, which was quoted at

37½ cents a week ago, was firm last week at 38 cents.

It was a fairly active week in the Fall River print cloth market and the estimated sales were placed at 100,000 pieces. Trading has been conducted on a rather quiet scale, embracing a wide variety of goods, including sateens, twills, wide and narrow print cloths and some of the finer constructions. An interesting feature was the appearance of some old time buyers in the market, which alone gives more confidence to the manufacturer and the market in general. There is no doubt but that the volume of sales could have been considerably increased had mills been willing to accept the business offered.

The sateen business has been of special interest. In the reverse twists, 88x48 sold at 10 cents and 96x50 at 11 cents. Spots and contracts have been the rule in this trading. In the 4.37 sateens trading has been quite general at 12 cents, with some of the better grades being held for an additional quarter. Fair sized quantities of 4.70 sateens were reported taken at 11 cents. Another popular number was 64x72, 5.25, at 9½.

Fairly heavy sales were also reported in three and four leaf twills. The most popular number was 39-inch, 64x48, 6.00, selling at 8½ and 8½, with delivery extending through the next two or three months.

Cotton goods prices were as follows:

Print cloths, 28-in., 64x64s	6½
Print cloths, 28-in., 64x60s	6½
Print cloths, 27-in., 64x60s	6
Gray goods, 38½-in., 64x64s	9½
Gray goods, 39-in., 68x72s	10½
Gray goods, 39-in., 80x80s	12
Brown sheetings, 3-yard	12½
Brown sheetings, 4-yard	10½
Brown sheetings, stand.	13½
Ticking, 8-ounce	22½
Denims	17½
Staple gingham, 27-in.	11½
Kid finished cambrics	9 a 10
Dress gingham	13½ a 17½
Standard prints	9½

### Sheeting Sold for Export.

We are glad to report that negotiations with the East finally bore fruit, resulting in the sale of a good sized quantity of coarse yarn sheetings in direct competition with Japanese goods. The sales probably showed little if any profit to the mills but, nevertheless, they were willing to make them bring some of the formerly well known brands into a market where they had not been seen for three or four years.—Bulletin of Hunter Manufacturing and Commission Company.

Southeastern Selling Agency

## LESSER-GOLDMAN COTTON COMPANY

OF ST. LOUIS, MO.

P. H. PARTRIDGE, Agent, Charlotte, N. C.

Extra staples, and good 1 1-16 and 1¼ cotton from Arkansas, Oklahoma, and Texas, and Memphis territory



# The Yarn Market

Philadelphia, Pa.—Beyond scattered trading on small lots for prompt delivery, there was little activity in the yarn market during the week. Prices continued on virtually the same levels the previous week, although spinners were firmer as the cotton market showed additional strength. Very few Southern mills are said to be in need of new business at this time and a great many of them are running behind in their deliveries. A considerable number of them are fully sold up for the next few months. With this condition and the fact that stocks are generally reported very low, spinners point out that there is little likelihood of lower prices now.

Prices quoted on carded knitting and weaving yarns by dealers in this market showed a general rise during the week, the advance generally being half a cent a pound and in some instances a full cent. This advance is believed to be the end of the general decline noted here since November. The prices quoted here since the first of the year have generally represented only what dealers could get for yarns for immediate and nearby delivery.

Combed yarns have continued very strong with mills declining to accept less than full quoted prices. Southern combed yarn mills have sold their production well ahead and are in a position to maintain prices for some time to come.

While the total amount of business done during the week showed no appreciable increase, buyers' interest was much better and inquiry generally was much more active. Most factors believed that a period of much more activity in the yarn trading is just ahead and that the next few weeks should see the development of a great deal of business that has been held back for a long time.

Southern Two-Ply Chain Warps.	
8s	34 1/2 a
10s	35 1/2 a
12s	36 1/2 a
14s	37 a
16s	37 1/2 a
20s	38 1/2 a
24s	41 1/2 a
26s	43 a
30s	44 a44 1/2
40s	55 1/2 a56
50s	65 1/2 a66
Southern Two-Ply Skeins.	
8s	33 1/2 a
10s	34 1/2 a
12s	35 1/2 a
14s	36 1/2 a
16s	37 a
20s	37 1/2 a38
24s	40 1/2 a
26s	42 a42 1/2
30s	43 1/2 a
36s	51 1/2 a
40s	52 1/2 a53
40s ex.	56 1/2 a57
50s	64 1/2 a65

60s	71 1/2 a
Tinged Carpet	3 and 4-ply 31 1/2 a
White Carpet	3 and 4-ply 33 1/2 a34
Part Insulated Waste Yarns.	
6s, 1-ply	29 a
8s, 2, 3 and 4-ply	30 a30 1/2
10s, 1-ply and 3-ply	32 1/2
12s, 2-ply	33 1/2 a
16s, 2-ply	35 1/2 a
20s, 2-ply	36 1/2 a
26s, 2-ply	41 a41 1/2
50s, 2-ply	42 1/2 a
Duck Yarns—3, 4 and 5-ply.	
8s	33 1/2 a
10s	34 1/2 a
12s	35 a
16s	37 a
20s	37 1/2 a38
Southern Single Chain Warps	
10s	34 1/2 a
12s	35 1/2 a
14s	36 1/2 a
16s	37 1/2 a
20s	38 1/2 a
24s	40 1/2 a
26s	41 1/2 a42
30s	43 1/2 a44
Southern Single Skeins.	
6s	33 1/2 a
8s	34 a
10s	34 1/2 a
12s	35 1/2 a
14s	36 a
16s	37 a
20s	37 1/2 a
22s	39 1/2 a
24s	40 1/2 a
26s	41 1/2 a42
30s	43 1/2 a44
Southern Frame Cones	
8s	33 1/2 a
10s	34 a
12s	34 1/2 a
14s	35 a
16s	35 1/2 a
18s	36 1/2 a
20s	37 1/2 a
22s	39 1/2 a40
24s	40 1/2 a41
26s	42 a
30s	40 1/2 a41
30s	42 a44
40s	51 a52
Southern Combed Peeler Skeins, Etc.—Two-Ply.	
16s	56 a60
20s	58 a62
30s	65 a67
36s	75 a80
50s	87 1/2 a90
60s	90 a95
70s	1 05a1 10
80s	1 18a1 20
Southern Combed Peeler Cones.	
10s	48 a49
12s	49 a50
14s	49 1/2 a50 1/2
16s	52 1/2 a
18s	51 a52
20s	52 a
22s	53 a
24s	56 a
26s	56 1/2 a
28s	57 a
30s	60 a
32s	62 a
34s	65 a
36s	72 a
38s	74 a
40s	75 a
50s	80 a
60s	90 a95
70s	1 05a
Eastern Carded Peeler Thread—Twist Skeins—Two-Ply.	
20s	50 a
22s	51 a
24s	56 a
30s	59 a
36s	63 a
40s	65 a
45s	70 a
50s	75 a
Eastern Carded Cones.	
10s	39 a
12s	40 a
14s	41 a
20s	42 a
22s	45 a
26s	49 a
28s	51 a



E. H. JACOBS MFG. CO., Danielson, Conn. Established 1889  
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WARP TYING MACHINES HAND KNOTTERS  
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The Starch for weight—the Tallow for lubrication—and Gum Tragasol to bind fibre and increase tensile strength of the yarn.

No Shedding Maximum Production  
Better Cloth

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## Want Department

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Account of replacement with different equipment we offer for sale the following at sacrifice prices: 21 Spoolers, 100 spindles each; 20 Warpers with beams; quantity of Spools. Delivery, commencing February, 1926.

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Several complete cotton spinning equipments. Priced surprisingly low.

We can offer several good cotton and knitting mill properties as going concerns at attractive prices.

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### Help Wanted

We have opening for combination band director and office man in our mill. Salary \$175.00 per month. Location, South Carolina. None but capable and dependable men need apply. Give full particulars as to experience, also references in first letter. Address S. G. V., care Southern Textile Bulletin.

### For Rent

in Greenville, S. C., all or part of 2400 sq. ft. office space. Second floor, good light, centrally located. Prefer tenant connected with textile trade. Address Box 295, Greenville, S. C.

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#### Veneer Packing Cases

They are lighter and stronger, made of perfect 3-ply Veneer Packing Case Shooks. A saving of 20 to 80 pounds in freight on every shipment because of extreme lightness. Stronger than inch boards, burglarproof, waterproof and clean. Write for prices and samples. Convincing prices—Quick service.

Wilts Veneer Co., Richmond, Va.

### Wanted

On account of starting up additional machinery and also night work, we can use 3 or 4 good Draper loom-fixers by December 28th. Apply in person or address C. H. Goodroe, Supt., Acworth Mills, Acworth, Ga.

### Wanted

A loom fixer on wide Crompton automatic blanket looms. Do not apply unless you have had experience on looms weaving blankets. Good wages to right man. Address S. I. C. Care Southern Textile Bulletin.

### For Sale

2 Woonsocket Slubbers, 11x5½, 60 spindles. New 1919.  
3 Globe Denn Warpings. Greatly under-priced.

Address: Hunter Machinery Co.,  
Marion, N. C.

### Wanted

One good union special sewing machine man. Must be competent to keep from 5 to 10 machines in first class condition and manage the operators. On straight seam work. Young man preferred. Common school education. Give reference and salary expected in first letter, and how soon can report. Address C. G. Care Southern Textile Bulletin.

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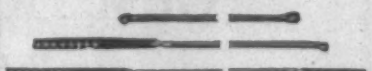
We do the engineering, and have had 22 years experience solving water problems satisfactorily for textile mills.

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### Superintendent Wanted

Want man for superintendent and local manager for small mill on coarse yarns. Expect to install looms. Mill is practically new and is modern and splendidly equipped in every respect. When reorganized will have low capitalization and no indebtedness. Applicant must be in position to take at least \$10,000 stock, the proceeds of which will be used as working capital. Other officers are taking stock for same purpose. It is a splendid opportunity for right man. Address "Yarn Mill," care Southern Textile Bulletin.

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## EMPLOYMENT BUREAU

The fee for joining our employment bureau for three months is \$2.00, which will also cover the cost of carrying a small advertisement for two weeks.

If the applicant is a subscriber to the Southern Textile Bulletin and his subscription is paid up to the date of his joining the employment bureau the above fee is only \$1.00.

During the three months' membership we send the applicant notices of all vacancies in the position which he desires and carry small advertisement for two weeks.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern Textile Industry.

WANT position in mill office as book keeper, auditor, paymaster or cost accountant. Would take place in superintendent's office. Full graduate from textile school and have considerable mill experience. No. 4734.

WANT position as overseer fancy cloth room or finishing department. Have had 18 years experience in finishing room, including experience on chambrays and gingham. Good references. No. 4735.

WANT position as overseer of carding or spinning. Reliable man of long experience who can furnish satisfactory references. No. 4736.

WANT position as overseer weaving on sheetings, print cloth, drills, duck, or osenaburgs. Eight years as night overseer and second hand in large mill. I. C. S. graduate in warp preparation and plain weaving. Age 39. Married, sober, now employed. Good references. No. 4737.

WANT position as master mechanic. Experienced on both steam and electric drive and am hard worker who can run your job right. References. No. 4738.

WANT position as master mechanic or machinist. Steam or electric drive, can handle turbines, engines, generators and am first class all around man. No. 4739.

WANT position as superintendent of yarn or cord fabric mill. Age 33, married, have been with large mill for past 8 years, 3 years as assistant superintendent. Good reasons for wanting to change and can give good references. No. 4740.

WANT position as superintendent or overseer carding in large mill. Long practical experience and can give first class references. No. 4741.

WANT position as overseer spinning in good mill. Can come on short notice. Experienced, reliable man of good habits and character and can give suitable references. No. 4742.

WANT position as overseer carding or spinning, or assistant superintendent of yarn mill. Long experience and can furnish references to show character and ability. No. 4743.

WANT position as overseer carding and spinning or second hand. Have had several years experience. Am I. C. S. graduate. Age 30, references. No. 4744.

WANT position as overseer of carding spinning with good Southern mill. Experience and training qualify me as first class man in every respect. No. 4745.

WANT position as superintendent, carder or spinner. Prefer North or South Carolina. Now employed. First class references. No. 4746.

WANT position as overseer weaving. Experienced on wide variety of goods and can run the job in thoroughly competent and satisfactory manner. No. 4748.

WANT position as overseer spinning, twisting and winding. Excellent references to show long record of satisfactory service. No. 4749.

WANT position as superintendent of small mill or carder and spinner in larger one. Experienced reliable man who can give first class references to show character and ability. No. 4750.

WANT position in slashing, drawing-in spooling or warping department. Am young man, I. S. C. graduate and can keep production up and seconds down. Good references. No. 4751.

WANT position as master mechanic; 13 years experience in mill steam plant and machine shops. Can furnish good references from previous employers. No. 4752.

WANT position as superintendent of cloth mill. Long experience on many fabrics and can get results. Fine references. No. 4753.

WANT position by practical weaver of long experience. Have been overseer for past two years, also second hand for four years. Understand plain, dobby and box weaving. Best of references. No. 4754.

WANT position as overseer spinning or would take good second hand's place. Long experience and good references to show character and ability. No. 4755.

WANT position as overseer weaving, 21 years experience in mill, 11 years in weaving. Age 36, married, now employed. Can furnish good references. No. 4756.

WANT position as overseer plain weaving, or would consider place as second hand in large mill. Have had about 20 year's experience, mostly on plain weaving. Good references. No. 4757.

WANT position as carder, spinner or both. Now employed as spinner. Have had 25 years experience in carding and spinning, 10 years as overseer. Good habits and can give good references. No. 4758.

WANT position as carder or spinner in large mill or superintendent of smaller mill. Would like opportunity to submit references showing my record. No. 4759.

WANT position as overseer carding. Can run any card room and run it right. Best of references from past employers. Can come on short notice. No. 4760.

WANT position as carder or spinner or either, pay to be at least \$36 weekly. Can come on short notice and give references to show ability and character. No. 4761.

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WANT position as overseer carding; 25 years experience in some of the best mills in the South. Can give excellent references as to character and ability. No. 4764.

WANT position as master mechanic. Long experience in both steam and electric power work and can handle machine shop in first class manner. Best of references. No. 4765.

WANT position as superintendent of small yarn mill or tire duck plant. Superintendent for past 6 years, 14 years experience on cord and tire duck. My references are unusually good and from well known mill men. No. 4766.

WANT position as superintendent of yarn. Qualified by experience and training to handle either in satisfactory manner. No. 4767.

WANT position as roller coverer. Now employed, but wish to change. Can do first class work in every respect. Good references. No. 4768.



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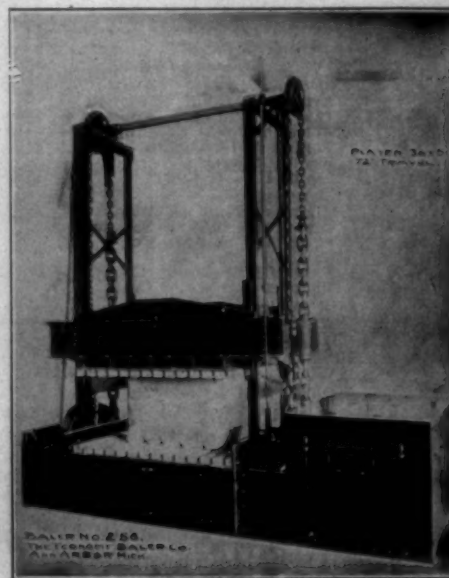
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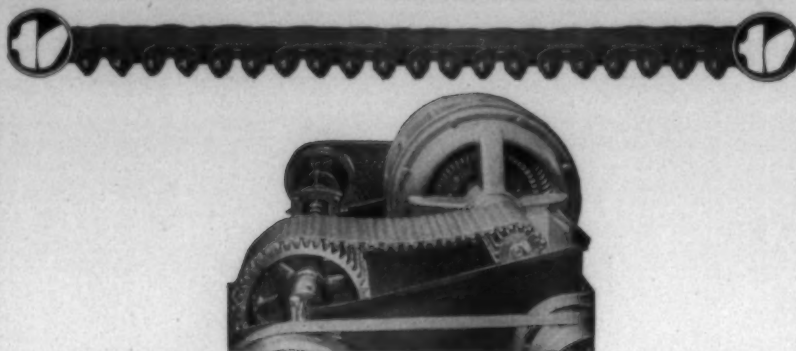
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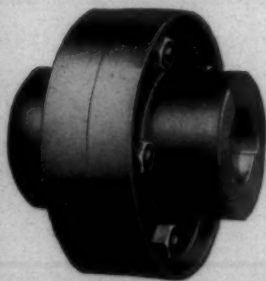


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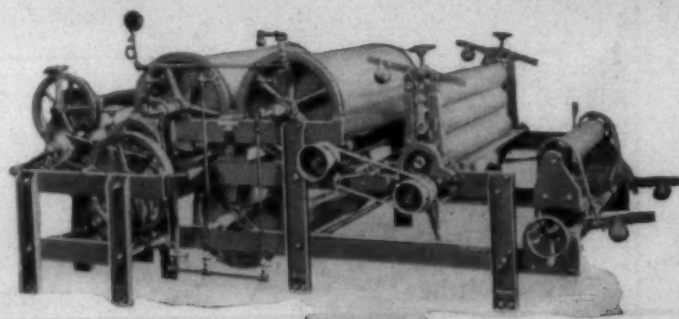
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